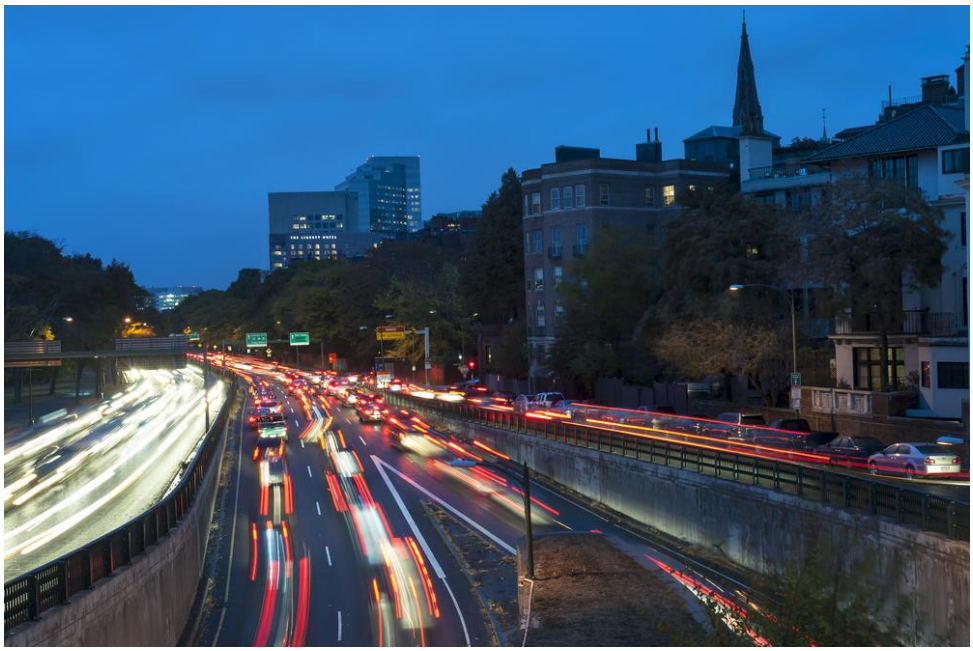
FFY 2019 Massachusetts Highway Safety Plan



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It was approved by NHTSA on August 17, 2018.

To learn more about:

NHTSA - https://www.nhtsa.gov/

FAST Act - https://www.gpo.gov/fdsys/pkg/PLAW-114publ94/pdf/PLAW-114publ94.pdf

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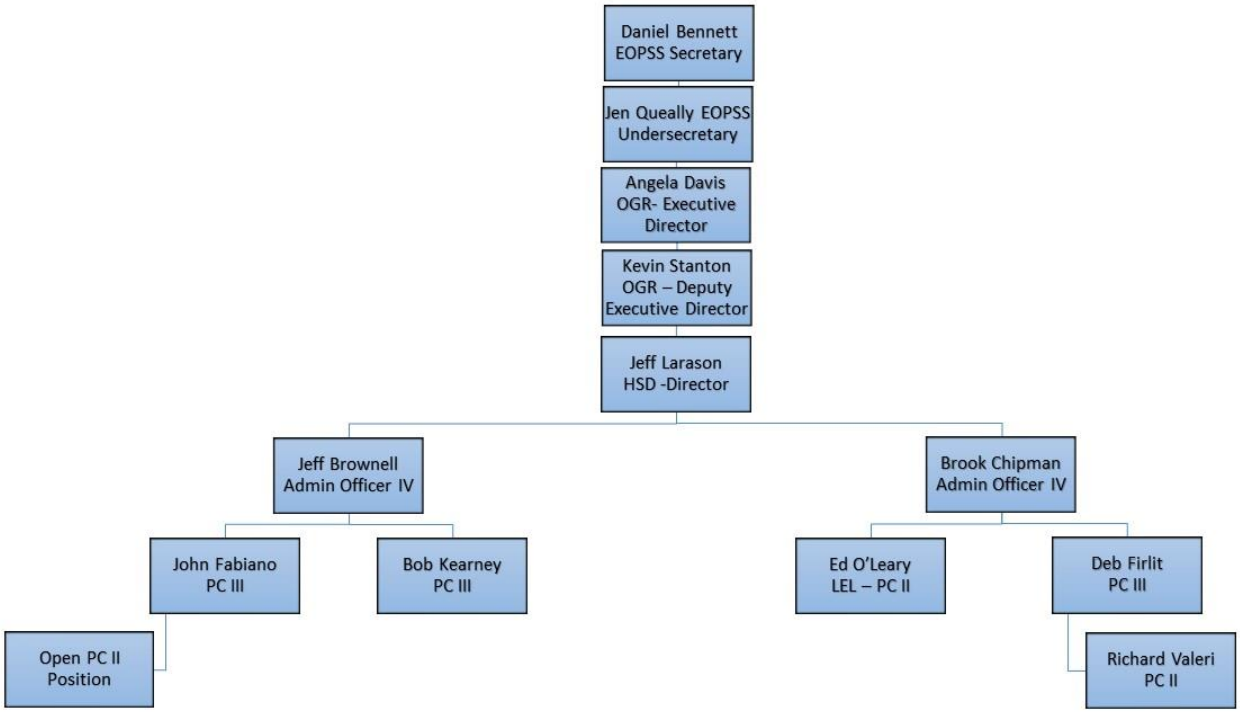
Introduction to the FFY 2019 Highway Safety Plan

On behalf of Governor Charles Baker and Lt. Governor Karyn Polito of the Commonwealth of Massachusetts, the Executive Office of Public Safety and Security/Office of Grants and Research/Highway Safety Division (EOPSS/OGR/HSD) is pleased to present its Federal Fiscal Year (FFY) 2019 Highway Safety Plan (HSP). This document outlines the EOPSS/OGR/HSD's program priority areas, identified performance targets, and discusses proposed initiatives within the agency. This HSP serves as the framework for the implementation of countermeasures with highway safety partners across the Commonwealth.

The EOPSS/OGR/HSD is responsible for the development, implementation, coordination, and ongoing management of the Massachusetts highway safety program. This includes a leadership role in identifying traffic safety priorities, and working with partners to develop programs and initiatives to address ongoing and shifting highway safety needs.

Current EOPSS/OGR/HSD Organization

The structure provided below is as of June 30, 2018. EOPSS/OGR/HSD is currently in the process of selecting potential candidates for interviews in regards to the open PC II position.



Staffing Updates

Joining EOPSS/OGR/HSD: Richard Valeri was hired as a PC II in November 2017. Previously, Richard was a police officer in North Reading. He will handle the local Traffic Enforcement Grants.

Leaving EOPSS/OGR/HSD: Alisa Leduc, a PC II, left the division in May 2018 to pursue other opportunities.

Mission Statement

The mission of the Office of Grants and Research/Highway Safety Division is to facilitate the development and implementation of policies, programs, and partnerships to help reduce fatalities, injuries, and economic losses resulting from motor vehicle crashes on the roadways of the Commonwealth of Massachusetts. The agency administers the federally and non-federally funded highway safety grant programs of EOPSS.

Highway Safety Program Overview

Within the Commonwealth of Massachusetts, EOPSS/OGR/HSD is responsible for planning, implementing, and evaluating highway safety projects with federal and non-federal funds. The agency also works to coordinate the efforts of federal, state, and local organizations involved with highway safety in Massachusetts.

This HSP for FFY 2019 serves as Massachusetts' application to NHTSA for federal funds available under the Fixing America's Surface Transportation (FAST) Act transportation bill. Other sources of funds include cooperative agreements with NHTSA for the Fatality Analysis Reporting System (FARS) project and private funds donated to the Highway Safety Trust Fund.

To identify the issues to be addressed in the FFY 2019 HSP, the agency relied primarily on 2007 to 2016 trend data but also considered preliminary 2017 data, if available.

The program planning throughout this HSP may be altered depending on the levels of funding received or evolving priorities. The agency will submit any changes to the HSP to NHTSA Region 1 for review and approval.

FFY 2018 Highlights

- The 2018 Seat Belt Usage Observation Survey rate was 82%, the highest usage rate reported to date in Massachusetts. This rate is 12 percentage points higher than in 2017. For the survey, 147 observation locations recorded 28,265 drivers and front seat passengers in 24,145 vehicles between the dates of May 30, 2018 and June 23, 2018.

- The 2018 Child Passenger Safety (CPS) Equipment Grant was awarded to 65 subrecipients, including local police and fire departments as well as regional hospitals. Subrecipients purchased over 2,000 federally-approved child safety seats and distributed nearly 400 new seats to low-income families and caretakers across 73 communities in Massachusetts.

- The 2018 Statewide CPS Administration and Training vendor, Baystate Medical Center, organized 32 classes, which attracted nearly 400 participants, on CPS-related topics including CPS Technician, CPS Technician Renewal, and CPS Ambulance. During FFY 2018, Baystate introduced a pilot program in conjunction with the Department of Children and Families (DCF) to train social workers that routinely transport children in the state's custody. Through this pilot program, over 100 social workers received critical CPS training.

- FFY 2018 saw the continued success of the Sustained Traffic Enforcement Program (STEP) with 16 communities (Barnstable, Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Springfield, Taunton, Westfield, and Worcester) along with the Massachusetts State Police (MSP) implementing high-visibility traffic enforcement throughout the year. The coordinated efforts resulted in 5,766 hours of enforcement, 16,250 stops, and 15,835 citations, warnings and arrests.

- During FFY 2018, local police departments participated in both impaired driving (Drive Sober or Get Pulled Over) and occupant protection (Click It or Ticket) mobilizations. These mobilizations resulted in over 11,000

hours of enforcement patrols, which lead to 30,338 motor vehicle stops and 9,186 citations being issued to drivers. Subrecipients also purchased over $300,000 in approved traffic safety-related equipment.

- The 2018 Pedestrian and Bicyclist Safety Enforcement & Equipment Grant was awarded to 84 local police departments in support of both overtime enforcement and the purchase of traffic safety devices aimed at improving pedestrian and bicyclists safety in their respective community. The grant funding allowed subrecipients to conduct 3,589 hours of enforcement, 8,376 stops, and issue over 9,000 citations and warnings to drivers, pedestrians and bicyclists.

- EOPSS/OGR/HSD continued its outreach efforts with traffic safety stakeholders across the Commonwealth by hosting four public forums throughout February 2018. These forums were held in Burlington, Fall River, Springfield, and Worcester. Attendees included over 90 officers representing 59 different police departments in Massachusetts as well as 26 non-law enforcement attendees for a total of 117 participants.

- EOPSS/OGR/HSD conducted the first ever New England-wide media campaign on distracted driving. The "Just Drive NE" campaign promoted attentive driving via an emotionally driven PSA featuring law enforcement representatives from all six New England states. The campaign was launched with a press conference at the Rhode Island Distracted Driving and Pedestrian Safety Summit in April 2018.

Partnerships

To help further enhance high safety in Massachusetts, EOPSS/OGR/HSD engages in many partnerships including, but not limited to:

AAA Northeast
Alcoholic Beverages Control Commission (ABCC)
Beth Israel Hospital
Boston Emergency Medical Services (EMS)
Brain Injury Association
Boston Medical Center
Boston Transportation Department
Councils on Aging
Department of Elder Affairs
Department of Health and Human Services
Division of Sleep Medicine at the Harvard Medical School
Driving School Association
Emerson Hospital
Executive Office of Energy and Environmental Affairs
Fisher College
Governors Highway Safety Association (GHSA)
Impaired Driving Advisory Board
Insurance Companies
Junior Operator License Advisory Committee
LivableStreets Alliance
Local Police Departments
Mass in Motion
Massachusetts Bay Transit Authority
Massachusetts Chiefs of Police Association (MCOPA)
Massachusetts Department of Public Health (MDPH)

Massachusetts Department of Transportation (MassDOT)
Massachusetts District Attorneys Association (MDAA)
Massachusetts Executive Level Traffic Records Coordinating Committee (METRCC)
Massachusetts Major City Chiefs Association
Massachusetts Medical Society
Massachusetts Motorcycle Association
Massachusetts Department of State Police (MSP)
Massachusetts Trial Court
MassBike
MassRIDES
McLean Hospital
Merit Rating Board (MRB)
Mothers Against Drunk Driving (MADD)
Municipal Police Training Committee (MPTC)
Office of the Commissioner of Probation
Regional Transit Authorities
Registry of Motor Vehicles (RMV)
Sage Naturals
Safe Kids of Boston
Safe Kids of Western MA
Safe Roads Alliance
Safe Routes to Schools
Safety Institute
SHSP Plan Executive Leadership Committee
Sleep Health Institute at the Brigham and Women's Hospital
State and Regional Planning and Development Agencies
Traffic Records Coordinating Committee (TRCC)
UMass, Boston
UMass Gerontology
UMass Memorial Health Care
UMassSAFE
WalkBoston
Work Zone Safety Committee

FFY 2019 Highway Safety Planning Process

The Massachusetts Executive Office of Public Safety and Security, Office of Grants and Research-Highway Safety Division (EOPSS/OGR/HSD) began the planning process for developing the FFY 2019 Highway Safety Plan by gathering all relevant data related to performance targets and doing an in-depth analysis of the data to find trends within one-year, five-year, and (if feasible) ten-year periods. The data was analyzed across different fields including county, municipality, month, time, gender, and age. Furthermore, mapping software was used to provide a visual tool to help analyze trends and hot spots throughout Massachusetts. This information helped EOPSS/OGR/HSD and its stakeholders identify high-risk locations as well as behavioral trends among roadway users that require attention.

The data sources utilized in this analysis process are listed below:

- Fatality Analysis Reporting Systems (FARS) – fatalities and fatal crashes
- Massachusetts Crash Data System (CDS) – fatalities and injuries
- Massachusetts Injury Surveillance Program – injuries and hospitalizations
- Massachusetts Citation Data – roadway violations
- Massachusetts Statewide Safety Belt Survey – safety belt usage, occupant protection
- FHWA Highway Statistics – Vehicle Miles Traveled (VMT), licensed drivers, and road miles
- U.S. Census Bureau statistics – population, income levels
- FBI Crime Statistics – arrests for driving intoxicated and other vehicle-related crimes

Results of the data were coordinated and shared with the Massachusetts Department of Transportation (MassDOT) to ensure performance targets related to fatalities, serious injuries, and fatalities per 100 million VMT are identical to what is in the Massachusetts Highway Safety Improvement Plan (HSIP) and the Strategic Highway Safety Plan (SHSP). Other performance targets were determined through trend analysis and ongoing exchanges with key federal, state, and local partners such as the Massachusetts State Police (MSP), local police departments, Massachusetts Department of Public Health (DPH), the Governors Highway Safety Association (GHSA), and the Traffic Records Coordinating Committee (TRCC) to identify possible areas of increased crash activity.

EOPSS/OGR/HSD also relied on input provided by participants at four statewide Traffic Safety Partnership Forums held in February of 2018. A wide range of community partners including state and local police, non-profit organizations focused on road safety, and municipal administrators attended the forums. Those in attendance provided a wealth of information related to traffic safety issues facing their respective communities and constituencies along with substantive suggestions about potential solutions to address those issues.

Taken together, data analysis and input from community partners, EOPSS/OGR/HSD was able to determine where to focus funding for FFY 2019 in order to have the greatest impacts in reducing crashes, injuries, fatalities, and associated economic losses.

To help determine problem areas to focus on, EOPSS/OGR/HSD engaged with many participants during the planning process, including but not limited to:

- Massachusetts Department of Transportation (MassDOT)
- Massachusetts Registry of Motor Vehicles (RMV)
- Massachusetts Department of Public Health (DPH)
- Massachusetts State Police (MSP)
- Governors Highway Safety Association (GHSA)
- Massachusetts District Attorneys Association (MDAA)
- Massachusetts Executive-Level Traffic Records Coordinating Committee (METRCC)
- Massachusetts Working-Level Traffic Records Coordinating Committee (WTRCC)
- Municipal Police Training Committee (MPTC)

- Merit Rating Board (MRB)
- University of Massachusetts Traffic Safety Research Program (UMassSafe)
- Local police departments
- Massachusetts Chiefs of Police Association (MCOPA)
- Municipal and town administrators
- SHSP Plan Executive Leadership Committee
- Safe Kids of Western Massachusetts
- Boston Emergency Medical Services (EMS)
- Massachusetts Alcoholic Beverages Control Commission (ABCC)
- Massachusetts Department of Health and Human Services (HHS)
- WalkBoston
- Girl and Boy Scouts
- Safe Roads Alliance
- Colleges and Universities
- InControl Family Foundation

Identification of Current Highway Safety Issues in Massachusetts

The identification of current traffic safety issues for the FFY 2019 HSP were made using data analysis of fatalities and fatal crashes over a ten-year period (2007–2016), from numerous elements including, but not limited to, counties, cities, time-of-day, month, day-of-week, road type, gender and age. Data from monthly and year-end reports from FFY 2018 grant-funded programs provided further insight to traffic safety trends. Lastly, input from traffic safety stakeholders added a third layer of analysis to the determination of traffic safety issues in Massachusetts.

The inclusion of data over a ten-year period rather than relying on a five-year period allows EOPSS/OGR/HSD to see trends longitudinally that may not show up in a five-year assessment or by comparing five-year averages (2007-2011 to 2012-2016).

Since 2007 Massachusetts has seen a drop across all performance targets, except pedestrian fatalities. Total fatalities have declined 10% from 434 in 2007 to 389 in 2016. The average number of fatalities reported from 2007-2011 was 372, while from 2012 to 2016 the average dropped to 364. This is potential evidence that EOPSS/OGR/HSD's outreach and grant funding provided to communities may be having a positive impact on driving behaviors in Massachusetts.

In addition to the drop in average yearly fatalities, Massachusetts has seen a substantial decline in the number of young drivers (under 21) involved in fatal crashes. The five-year average for 2007 to 2011 was 59. This average has dropped to 38 for 2012 to 2016, a 36% decline.

With the drop in young drivers involved in fatal crashes, a demographic that is more likely to drive aggressively and recklessly, it is not surprising that the overall number of speed-related fatalities went down as well. The average number of speed-related fatalities for 2007 to 2011 was 104; for 2012 to 2016, it fell to 97. This represents a decline of 7%.

The drop in young driver involvement in fatal crashes and speed-related fatalities shows the long-term positive impact of the Massachusetts Junior Operator Law. However, despite the decline in young driver fatalities, use of seat belts among those in speed-related crashes remains high. In 2016, 39% of all speeding fatalities were unrestrained.

Impaired driving is a statewide issue that EOPSS/OGR/HSD has worked diligently with local and state police to target certain demographics (males under 35 of age), areas (primary arterial roads in proximity of popular liquor establishments), and times (between 9pm – 3am on Thursday, Friday, or Saturday) for mobilizations and enforcement patrols. The impact has been positive as alcohol-impaired fatalities have dropped from 155 in 2007 to 119 in 2016, a 23% decline. From 2007 to 2011, the average number of alcohol impaired fatalities was 371; from 2012 to 2016, it was 364.

Bristol and Worcester counties combined for nearly 30% of all alcohol impaired fatalities from 2007 to 2016. Boston had the highest percentage of any municipality in the state with a third of fatalities resulting from impairment. Next was Worcester (22), Springfield (22), Brockton (14) and Norwood (6) rounded out the top five locations for alcohol impaired fatalities.

Alcohol impairment is a concern when it comes to both speeding and distracted driving. Since 2010, when distracted driving crashes began being reported, 25% of all distraction related fatal crashes also involved alcohol. During the same period, 47% of all speed-related fatal crashes also involved alcohol. In 2016, 18% of all crashes involved alcohol and either speeding and/or distracted driving, up from 15% in 2015.

Although impaired driving fatalities have declined, EOPSS/OGR/HSD will continue working with law enforcement and to promote media messaging to make more roadway users aware of the dangers involved when it comes to drinking and driving as well as impairment related to marijuana and other drugs.

Motorcycle fatalities have declined, with the five-year average from 2012 to 2016 being nearly 6% lower than the five-year average for 2007 to 2011. From 2015 to 2016, the number of motorcycle fatalities dropped 25% from 56 to 42.

Motorcycle fatalities occur more often among the 21 to 35 age group, which accounted for 44% of all motorcycle fatalities from 2007 to 2016. During this same period, nearly 40% of fatal motorcycle crashes involving another motor vehicle took place in three counties: Bristol (13%), Hampden (11.7%), and Worcester (14.3%). Of interest is Hampshire County where only 3% of fatal motorcycle crashes involve another vehicle.

Occupant protection has always presented a conundrum for Massachusetts as the fatalities/VMT rate is consistently among the best in the nation (0.63 in 2016) while the seat belt usage rate (as determined by the annual statewide seat belt observational survey) is one of the worst as we are 49th out of 50 states (73.7% in 2017). Despite this contradiction, passenger vehicle fatalities, on average, have declined since 2007. From 2007 to 2011, the average number of occupant fatalities was 239. From 2012 to 2016 the number dropped 8.7% to 218. Unrestrained fatalities, as a percentage of all occupant fatalities, have declined from 53% in 2007 to 47% in 2016.

Drivers account for 75% of all unrestrained fatalities, passengers for the other 25%. Drivers between 21 and 35 made up nearly 37% of all unrestrained driver fatalities from 2007 to 2016. Passengers between ages 16 and 25 accounted for 45% of all unrestrained passenger fatalities during the same period. For FFY 2019, EOPSS/OGR/HSD intends to create media messaging to better connect with drivers and passengers within these age groupings during key mobilization periods, especially during the Click It or Ticket enforcement period in May.

As stated previously, pedestrian fatalities have increased since 2007. A look at the five-year averages from 2007 to 2011 and from 2012 to 2016 reveals the average number of pedestrian fatalities rose from 65 to 79, a 22% increase. In 2016, pedestrian fatalities accounted for 21% of all traffic fatalities. Male pedestrian fatalities represented nearly two-thirds of all pedestrian fatalities from 2007 to 2016.

Of concern for EOPSS/OGR/HSD is the rising number of older pedestrian fatalities, specifically those over 65 years of age. From 2007 to 2016 this age group accounted for nearly 33% of all pedestrian fatalities. The average number of 65 or older pedestrian fatalities per year is 24. For comparison, the average number of under 21 pedestrian fatalities during the same period was four. EOPSS/OGR/HSD intends to work closely with FFY 2019 Pedestrian Grant recipients to better target this demographic.

County-level Trends

From 2007 to 2016, the top four counties for fatalities, based on a percentage of total fatalities, were Worcester (15%), Middlesex (14%), Bristol (12%) and Plymouth (10%). Over the last five years (2012-2016), fatalities have been increasing in both Norfolk and Plymouth County compared with the prior five-year period from 2007 to 2011. Norfolk fatalities have

increased by 22; Plymouth by 24. Middlesex, on the other hand, has seen fatalities drop by 38. Both Essex and Bristol saw total fatalities from 2012 to 2016 decline by 18 compared to 2007-2011.

Looking at the percentage of each type of fatality (driver, passenger, pedestrian, bike) of a county's total fatality count for 2007-2016 reveals the following:

- Highest Driver fatality percentage: 69% - Bristol and Plymouth
- Highest Passenger fatality percentage: 24% - Franklin County
- Highest Pedestrian fatality percentage: 38% - Suffolk County
- Highest Bicyclist fatality percentage: 6% - Suffolk County

Other Trends of Interest

EOPSS/OGR/HSD also looked at age, time-of-day, day-of-week, and month to further analyze the fatality data. Data is for 2007 to 2016.

Time-of-day

- 59% of fatal crashes happen between 12:00 pm – 11:59 pm
- 62% of fatal crashes take place from 3:00 pm to 3:00 am

Age

- Ages under 21 accounted for 13% of all fatalities
- Age 21 to 25 accounted for 15% of all fatalities
- Age 65 and over accounted for 21% of all fatalities
- Drivers age 35 and under accounted for 65% of all unrestrained driver fatalities in a speed-related crash
- Passengers age 35 and under accounted for 81% of all unrestrained passenger fatalities in a speed-related crash

Day-of-week and Month

- Saturday is the most common day-of-week for fatalities.
- Saturday is also the day with the highest number of unrestrained fatalities, speed-related fatalities, and motorcycle fatalities.
- Bicyclist fatalities occur most often on Wednesdays.
- Pedestrian fatalities occur most often on Thursdays.
- Fatalities tend to average higher from May to October. This is the case for all types of fatalities, with the exception of pedestrians. Pedestrian fatalities are substantially highest from October to December.

Putting it all together – what does all the data mean?

Based on the data presented above, EOPSS/OGR/HSD plans to focus funding on the following areas: occupant protection, impaired driving, speeding/distracted driving, and pedestrian, bicyclist, motorcyclist and young driver safety.

Working in collaboration and cooperation with EOPSS/OGR/HSD partners and subrecipients across the Commonwealth, funding will focus traffic enforcement efforts in cities with high motor vehicle fatality counts, and strive to that ensure activities take place during times when data show high fatal crash rates.

Project Selection Process

EOPSS/OGR/HSD will rely on a multi-faceted approach to developing and selecting the projects for FFY 2019. Input used to develop the planned activities came from several sources including:

- Data – Trends in fatalities, fatal crashes, serious injuries, seat belt usage, and traffic citations
- EOPSS/OGR/HSD staff – Provides extensive knowledge on current projects that may be renewed in FFY 2019 as well as critical insight into subrecipients' concerns and suggestions
- Partners – State and local governmental, community groups and non-profit organizations with a public safety mission.
- Subrecipients – Monthly activity reports and final reports provided great information on the impacts of current programs and what could be changed or improved to make the programs more effective. Program managers at EOPSS/OGR/HSD establish spreadsheets for every grant under their purview, covering all aspects including funding, expenditures, and activity (i.e. number of stops, hours of patrol, types of violations issued). Since many projects are the same year-to-year, EOPSS/OGR/HSD is able to compare projects across several years to see trends or where changes need to be made to improve the impact of the funds distributed.
- Open meetings – EOPSS/OGR/HSD conducted four Traffic Safety Partnership Forums across the state to solicit feedback from partners about a wide range of traffic safety issues. The most recent forums took place during January and February of 2018. Some of the concerns and suggestions from the forums included, but no limited to, more flexibility with conducting traffic enforcement grant patrols; issues arising from increased distracted driving crashes; and trepidation over the ability to legally purchase marijuana and its impact on drivers.

Taking all the sources together, EOPSS/OGR/HSD seeks to institute programs that will have the greatest positive impacts in terms of reducing crashes, fatalities, serious injuries and associated economic losses. Grant subrecipients will be selected for funding based on needs identified by data-driven evidence. Grant applicants will need to show in their applications how they will utilize funding to best achieve the desired results.

Announcements of Availability of Grant Funding (AGF) opportunities are posted online through the state of Massachusetts' online portal, Mass.gov, and emails are sent out to prior and potential partners across the state, including, but not limited to, state police, local police, municipalities, state agencies, hospitals and non-profit organizations. The emails always provide a hyperlink (URL) to the location in the Mass.gov portal where the AGFs and associated grant documents are located. The documents needed to apply for grants typically remain online for 4-6 weeks.

If the total value of funding requested by applicants to an AGF is higher than the amount of available funding for that program, EOPSS/OGR/HSD utilizes a scoring process that results in all applications being rated along several elements and then ranked from highest to lowest to determine grant awardees. The scoring process involves convening a Review Team (RT) of five members - three of which have to come from outside of EOPSS/OGR - that will read and rate all submitted applications on a scale of 1-5, with 5 being the best, along 5 or 6 measures such as completeness of application, description of planned activities, and long-term impact on a community's traffic safety.

Data Sources Used for Issue Identification

- Fatality Analysis Reporting System (FARS)
- Massachusetts Department of Transportation (MassDOT) Crash Data System
- Massachusetts Injury Surveillance Program
- Massachusetts Citation Data
- Massachusetts Statewide Seat Belt Observational Survey
- Federal Highway Administration (FHWA)
- Federal Bureau of Investigation (FBI) Crime Statistics
- United States Census Bureau

Coordination with State Highway Safety Plan (SHSP)

The SHSP has statewide goals, objectives and emphasis areas which were developed in consultation with federal, state, local, and private sector safety stakeholders using data-driven, multi-disciplinary approaches involving engineering, education, enforcement, and emergency response.

As a key contributor to the SHSP planning process, EOPSS/OGR/HSD has worked with MassDOT (the lead agency for the SHSP) and other key stakeholders such as the Executive Office of Health and Human Services (EOHHS), Massachusetts Department of Public Health (DPH), regional transit authorities, insurance companies, WalkBoston, and hospitals to develop a tiered classification of emphasis areas. The emphasis areas are broken into three levels: Strategic, Proactive, and Emerging.

Strategic areas: Impaired Driving, Intersection Crash Prevention, Lane Departures, Occupant Protection, Speeding/Aggressive Driving, Young Drivers, Older Drivers, Pedestrians, and Motorcycle Riders.

Proactive areas: Bicycles, Truck and Bus-Involved Crashes, At-Grade Crossing, and Traffic Incident Management Safety (formerly work zone safety). These areas represent less than 10% of annual fatalities or severe injuries, but require attention to minimize potential increases.

Emerging areas: Data Systems, Drowsy Driving, and Driver Inattention (or Distracted Driving).

These areas focus on improving the data system used to analyze traffic safety patterns and for safety topics where data is currently inconclusive.

In the HSP, EOPSS/OGR/HSD targets many of the same emphasis areas as the SHSP including impaired driving, occupant protection, speeding/aggressive driving, young and older drivers, pedestrians, motorcycles, bicycles, distracted and drowsy driving, and data systems (traffic record systems). Intersection Crash Prevention, lane departures and at-grade crossings are not emphasis areas that are within the purview of the EOPSS/OGR/HSD mission. Through grant funding and media messaging, EOPSS/OGR/HSD seeks to change driver, passenger, and non-occupant behaviors that will result in reduced fatalities on the roadways of Massachusetts. At the same time, the SHSP looks to limit motor vehicle-related fatalities through infrastructure improvements such as better roadway design, new crosswalks, and the installation of traffic lights. The combination of improving the physical roadway and roadway user behaviors by EOPSS/OGR/HSD and MassDOT, respectively, provides the best strategy for reducing fatalities.

EOPSS/OGR/HSD also works in collaboration with MassDOT to establish yearly targets for three key core performance measures – fatalities, fatalities/VMT, and serious injuries. Per Federal law (FAST Act), the HSP and SHSP (or HSIP) must have identical targets for these three performance measures. This ensures both agencies are united in the same objectives and will help drive all programs run by both agencies towards the common goals of decreasing fatalities, fatalities/VMT, and serious injuries in the long-term.

The performance targets identified in the following section were established as part of the problem identification process previously described above. Performance targets were established by reviewing available data trends provided by data sources such as FARS, MassDOT Crash Portal, and NHTSA reports.

For FFY 2019, based on available data, EOPSS/OGR/HSD and MassDOT have adopted the following goals for calendar base year 2015-2019 for fatalities, serious injuries, and fatalities/VMT.

- Five-year average for **fatalities** will drop 2% from 367 in 2016 to 360 by December 31, 2019
- Five-year average for **serious injuries** will decrease 10.6% form 3,132 in 2016 to 2,801 by December 31, 2019
- Five-year average for **fatalities/VMT** will drop 2.65% from 0.64 in 2016 to 0.62 by December 31, 2019

Performance Review of 2018 HSP Targets

Core Performance Measures

C-1 Traffic Fatalities

In the FFY 2018 HSP, the performance target for fatalities was to decrease motor vehicle fatalities 2.5% from the five-year average of 361 in 2015 to a five-year average of 352 by December 31, 2018.

- One-year change (2015 to 2016): 13% increase in fatalities from 350 to 395
- Five-year average change (2011-2015 to 2012-2016): 1.4% increase from 362 to 367
- Ten-year change (2007 to 2016): -9% decline from 434 to 395.

This performance target is currently in progress. While the one and five-year results point to a slight uptick in fatalities on Massachusetts roadways, over the last ten years it has dropped nearly nine percent. Despite the increase in 2016, the average number of fatalities have been trending downwards. From 2007-2011, the average number of fatalities was 372; from 2012-2016, the average was 366 - a 2% decrease between the two five-year periods. Furthermore, during the past ten years (2007-2016), the overall vehicle miles traveled reported for Massachusetts jumped 11% from 54,648 million to 60,562 million while motor vehicle fatalities declined 9%. While more drivers and cars are using the roadways, the number of deaths on those roadways among drivers, occupants, and non-motorists have trended lower.

C-2 Serious Injuries

In the FFY 2018 HSP, the performance target for serious injuries was to decrease serious injuries 11% from the five-year average of 3,252 in 2015 to a five-year average of 2,896 by December 31, 2018.

- One-year change (2015 to 2016): 4% increase from 2,867 to 2,980
- Five-year average change (2011-2015 to 2012-2016): -4% drop from 3,252 to 3,132
- Ten-year change (2007 to 2016): -40% drop from 4,182 to 2,980

This performance target is currently in progress. With a five-year average decline of 4% in the past year and a 40% decline in serious injuries since 2007, Massachusetts is cautiously optimistic about achieving the five-year average goal of 2,896 by December 31, 2018.

C-3 Fatality/VMT

In the FFY 2018 HSP, the performance target for fatalities/VMT was to decrease fatality/VMT rate 4.5% from the five-year average of 0.64 in 2015 to a five-year average of 0.61 by December 31, 2018.

- One-year change (2015 to 2016): 9% increase from 0.58 to 0.63
- Five-year average (2011-2015 to 2012-2016): -1.6% decline from 0.64 to 0.63
- Ten-year change (2007 to 2016): -20% from 0.79 to 0.63

This performance target is in progress. The one-year increase was due to the unexpected jump in motor vehicle fatalities from 350 to 395 between 2015 and 2016. Despite the increase, historical trend data reveal that spikes in fatalities have been followed by successive years of declining motor vehicle deaths. For example, in 2012, the number of fatalities was 382 but then from 2013 to 2015, the average number of fatalities was 351 (350, 354, 350). Therefore, the increase in 2016 is seen as merely a bump in the road.

C-4 Unrestrained Motor Vehicle Occupant Fatalities

In the FFY 2018 HSP, the performance target was to decrease unrestrained passenger vehicle occupant fatalities 10% from the five-year average of 105 in 2015 to a five-year average of 95 by December 31, 2018.

- One-year change (2015 to 2016): 20% increase from 88 to 106
- Five-year average (2011-2015 to 2012-2016): -3% drop from 105 to 102
- Ten-year change (2007 to 2016): -28% drop from 148 to 106

This performance target is in progress. Despite the uptick in unrestrained passenger fatalities from 2015 to 2016, the 3% decline in five-year average and -28% drop over the past ten years as well as the increase in belt usage from 67% to 74% during the same period all point to unrestrained passenger fatalities to continue decreasing in the coming years.

C-5 Fatalities Involving a Driver or Motorcyclist with BAC 0.08 or higher

In the FFY 2018 HSP, the performance target was to decrease alcohol-impaired driving fatalities 5% from the five-year average of 124 in 2015 to a five-year average of 118 by December 31, 2018.

- One-year change (2015 to 2016): 9% increase from 109 to 119
- Five-year average (2011-2015 to 2012-2016): -1% drop from 126 to 125
- Ten-year change (2007 to 2016): Increase from 115 to 119

Progress is being made on this target as the five-year average dropped to 125 in 2016 and despite the 9% yearly increase from 2015 to 2016, the ten-year decline of 23% is a positive indicator that alcohol-impaired driving fatalities should continue to decline in the coming years.

C-6 Speed-Related Fatalities

In the FFY 2018 HSP, the performance target was to decrease speed-related fatalities 5% from the five-year average of 100 in 2015 to a five-year average of 95 by December 31, 2018.

- One-year change (2015 to 2016): 14% increase from 92 to 105
- Five-year average (2011-2015 to 2012-2016): -3% drop from 100 to 97
- Ten-year change (2007 to 2016): -27% drop from 143 to 105

This performance target is in progress as the five-year average dropped from 100 to 97, shy of the target five-year average of 95. Despite the recent increase in speed-related fatalities in 2016, the ten-year decline of 27% shows that, in the long-term, speed-related fatalities will likely decline further.

C-7 Motorcyclist Fatalities

In the FFY 2018 HSP, the performance target was to 'decrease motorcyclist fatalities 5% from the five-year average of 49 in 2015 to a five-year average of 46 by December 31, 2018.

- One-year change (2015 to 2016): -25% decline from 56 to 42
- Five-year average (2011-2015 to 2012-2016): 2% increase from 48 to 49
- Ten-year change (2007 to 2016): -32% decline from 62 to 42

This performance target is currently in progress as the five-year average remains at 49, despite the 25% drop in fatalities from 2015 to 2016. If motorcycle fatalities continue to drop in 2017, the five-year average goal of 46 can be achieved.

C-8 Unhelmeted Motorcyclist Fatalities

In the FFY 2018 HSP, the performance target was to decrease unhelmeted motorcycle fatalities 20% form the five-year average of 5 in 2015 to a five-year average of 4 by December 31, 2018.

- One-year change (2015 to 2016): -71% drop from 7 to 2
- Five-year average (2011-2015 to 2012-2016): -20% drop from 5 to 4
- Ten-year change (2007 to 2016): -33% decline from 3 to 2

Although the five-year average for 2016 has attained the goal of four set in the 2018 HSP, this performance target remains in progress as the numbers for 2017 and 2018 are yet to be determined. Given the drop in the one-year, five-year, and ten-year measures above, it is highly likely this performance target will be met come December 31, 2018.

C-9 Number of Drivers age 20 or younger Involved in a Fatal Crash

In the FFY 2018 HSP, the performance target was to decrease the number of young drivers (age 20 or under) involved in fatal crashes 10% from the five-year average of 38 in 2015 to a five-year average of 34 by December 31, 2018.

- One-year change (2015-2016): 35% increase from 34 to 46
- Five-year average (2011-2015 to 2012-2016): -3% drop from 39 to 38
- Ten-year change (2007 to 2016): -39% drop from 76 to 46

This performance target is currently in progress as the numbers from 2017 and 2018 remain to be seen, but the 3% decline in the five-year average from 2015 to 2016 is a positive step towards meeting the stated goal for December 31, 2018.

C-10 Pedestrian Fatalities

In the FFY 2018 HSP, the performance target was to decrease pedestrian fatalities 5% from the five-year average of 77 in 2015 to a five-year average of 73 by December 31, 2018.

- One-year change (2015 to 2016): No change as the number of pedestrian fatalities held steady at 80
- Five-year average (2011-2015 to 2012-2016): 3% increase from 77 to 79
- Ten-year change (2007 to 2016): 21% rise from 66 to 72

As evidenced by the increase in both the five-year and ten-year measures above, the performance target for pedestrian fatalities remains a work in progress. Despite the unfortunate rise in pedestrian fatalities over the years, Massachusetts is hopeful that increased funding for pedestrian safety-related grant programs will have a positive impact on the numbers for 2017 and 2018.

C-11 Bicyclist Fatalities

In the FFY 2018 HSP, the performance target was to decrease bicyclist fatalities 10% from the five-year average of 9 in 2015 to a five-year average of 8 by December 31, 2018.

- One-year change (2015 to 2016): -17% drop from 12 to 10
- Five-year average (2011-2015 to 2012-2016): 11% increase from 9 to 10
- Ten-year change (2007 to 2016): -9% drop from 11 to 10

This performance target is in progress pending the number of bicyclist fatalities reported for 2017 and 2018. Given the recent one-year drop of 17% from 12 to 10 fatalities, Massachusetts is cautiously hopeful the performance target will be met come December 31, 2018.

B-1 Observed Seat Belt Usage

In the FFY 2018 HSP, the performance target was to increase observed seat belt use rate 4% from the five-year average of 75 in 2015 to a five-year average of 79 by December 31, 2018.

- One-year change (2016 to 2017): 5% drop from 78 to 74
- Five-year average (2012-2016 to 2013-2017): 1% increase in belt usage from 75 to 76
- Ten-year change (2008 to 2017): 7% increase in belt usage from 67 to 74

This performance target is currently in progress. The increase in the five-year average as well as the 10% rise in belt usage since 2007 provide evidence of a positive trend towards a higher seat belt usage rate in 2018.

Non-Core Performance Measures

Below are targets that Massachusetts HSD listed in the 2018 HSP that were not considered 'core' targets by NHTSA but helped provide further data support on traffic safety throughout the state.

NC-1 Rural Fatalities/VMT

For FFY 2018, the target was to decrease the rural fatalities/VMT rate by 5% from the five-year average of 1.41 in 2011-2015 to a five-year average of 1.34 by December 31, 2018.

The five-year average for 2012-2016 for rural fatalities/VMT was 1.36, an 8% decline from the previous five-year period of 2011-2015.

Rural fatalities continued to decline in 2016, dropping from 22 the previous year to 17. Since 2012, rural fatalities have decreased from 50 to 17 - a 66% reduction.

NC-2 Urban Fatalities/VMT

The FFY 2018 HSP target for Urban VMT was to decrease urban fatalities/VMT rate by 5% from the five-year average of 0.58 in 2011-2015 to a five-year average of 0.55 by December 31, 2018.

The five-year average for 2012-2016 was 0.60, which is a slight increase from the 2011-2015 five-year average listed in the FFY 2018 HSP. Therefore, the performance measure target is in progress as the vehicle miles traveled are expected to increase in 2018 (as it usually does) and if urban fatalities either hold steady or decline, the urban VMT rate will go down.

The number of urban fatalities rose from 322 in 2015 to 372 in 2016, a 16% increase. In 2015, urban fatalities accounted for 93% of all traffic fatalities. For 2016, the percentage is 96%.

NC-3 Alcohol-Related Fatalities/VMT

For FFY 2018, the target for alcohol-related fatalities/VMT was to reduce the rate by 5% from the five-year average of 0.22 in 2011-2015 to a five-year average of 0.21 by December 31, 2018.

The five-year average for alcohol-related fatalities/VMT from 2012-2016 was 0.20, a very slight decrease from the previous five-year average for 2011-2015.

Alcohol-related fatalities rose from 95 in 2015 to 119 in 2016, a 25% increase. Despite this uptick, alcohol-related fatalities have dropped 8% since 2012. If VMT continues to rise and alcohol-related fatalities hold steady, the alcohol fatality/VMT rate should decline slightly over the next couple of years.

NC-4 Distracted Driving-Related Fatalities

For FFY 2018, the target was to decrease distracted-driving fatalities by 10% from 64 in 2015 to 58 by December 31, 2018. In 2016, the number of distracted-driving fatalities was 28, a seemingly drastic reduction from 2015. After submission of the FFY 2018 HSP, further analysis was done on the data obtained from FARS on distracted driving fatalites and it was found the selected elements to discern the number of fatalities were incorrect and thus provided erroneous data results. After the error was corrected, the number of distracted driving fatalities reported from 2012 to 2016 are as follows:

2012: 33
2013: 36
2014: 23
2015: 30
2016: 28

The five-year average for distracted driving fatalities from 2012-2016 was 30, down 2% from the five-year average for 2011-2015.

NC-5 Older Drivers (65+) Involved in Fatal Crashes

For FFY 2018, the target was to decrease older drivers (65+) involved in fatal crashes from the five-year average of 69 in 2011-2015 to a five-year average of 65 by December 31, 2018.

The five-year average for 2012-2016 was 72, an increase of 2% from 2011-2015.

On a year-to-year basis, the number of older drivers involved in a fatal crash rose from 72 to 79 in 2016. This represents an increase of 10% from 2015.

Performance Review of Traffic Records-Related Targets

Traffic Records projects are aimed at improving the accuracy, completeness, and timeliness of the traffic records data collection systems in Massachusetts. Below is a review of progress made on performance targets listed in the 2018 HSP.

TR-1 Increase Number of Linked EMS/Crash Reports

For FFY 2018, the target was to improve the integration of traffic records systems by increasing the number of linked Massachusetts EMS/crash reports from 0% to 75% from June 30, 2017 to June 30, 2018.

No progress made as UMassSafe only gained access to the EMS data from DPH in April 2018 to begin work in earnest, so this project will now need an extension to December 31, 2018. The performance target will remain the same but the project end date and performance target end date will now be December 31, 2018.

TR-2 Number of Agencies with access to MassTRAC

For FFY 2018, the target was to increase by 5% the number of agencies able to access MassTRAC (or any successor system) from 305 in May 2017 to 335 in May 2018.

MassTRAC was formally shut down during the latter part of 2017 and plans are in the works to build a successor system within the next couple of years. Going forward, the new performance target for the successor system is to have a developed business plan for the new system by December 31, 2018.

The main reason for the closure of MassTRAC was due to the lack of updated data available to users. At the time of closure, the most recent data available was 2012. The lack of updates to the database was a result of funding priorities being diverted elsewhere regarding traffic records-related projects.

TR-3 Number of Days from Crash Incident to Reception of Crash Reports by RMV

For FFY 2018, the target was to improve the timeliness of crah data by decreasing the average number of days from crash incident to receipt of crash report by the RMV from 47.13 days between April 1, 2016 to March 31, 2017 to less than 45 days between April 1, 2017 to March 31, 2018.

No progress has been made. RMV reported as of March 31, 2018, the average number of days from crash incident to receipt of crash report by the RMV was 86.54, up from 47.13. This was attributable to RMV focusing on receiving and processing 2016 crash reports received this year. A RMV vendor upgraded the XML version and submitted crash reports for 2016 to help ease the processing backlog of fatal crash reports from 2016 and 2017.

TR-4 Validation Score for MATRIS Version 2.0

For FFY 2018, the target was to improve completeness of the Massachusetts emergency medical services (EMS/injury database, the Massachusetts Ambulance Trip Record Information System (MATRIS)), this project will seek to increase the system's Version 2 validation score from 86.8 for year ending December 31, 2016 to 89 for year ending December 31, 2017.

Progress was made on this target. The system's Version 2 validation score was 90.4.

TR-5 Number of Ambulance Services Submitting Version 2.0 Reports

For FFY 2018, the target was to improve the completeness of MATRIS, the project will increase the number of ambulance services submitting Version 2 reports to the State. MATRIS accepts only electronically submitted and fully NEMSIS (Version 2) compliant EMS run reports. The number will be increased from 323 as of December 31, 2016 to 329 as of December 31, 2017.

The number of reporting services as of December 31, 2017 was 327, just shy of the stated goal of 329.

TR-6 Number of Intersections with Fundamental Data Elements (FDE)

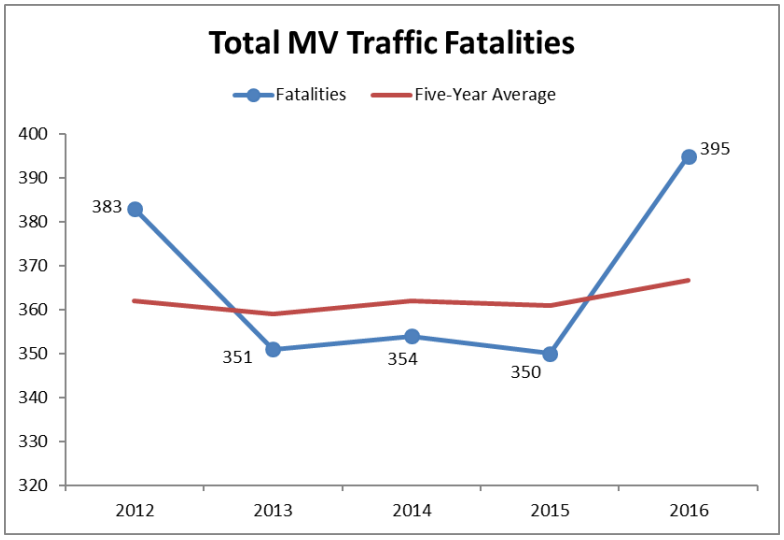
For FFY 2018, the target was to improve the completeness of the Massachusetts statewide road inventory database by increasing the number of intersections with Fundamental Data Elements (FDEs) from 0 as of June 30, 2017 to 5,400 as of June 30, 2018.

No progress made due to extensive delays in Central Transportation Planning obtaining access to an online tool that had been under development. This project will now need an extension to December 31, 2018. The performance target number will remain the same but the project end date and performance target end date will be extended to December 31, 2018.

Core Performance Measure Targets for FFY 2019

C-1 Traffic Fatalities

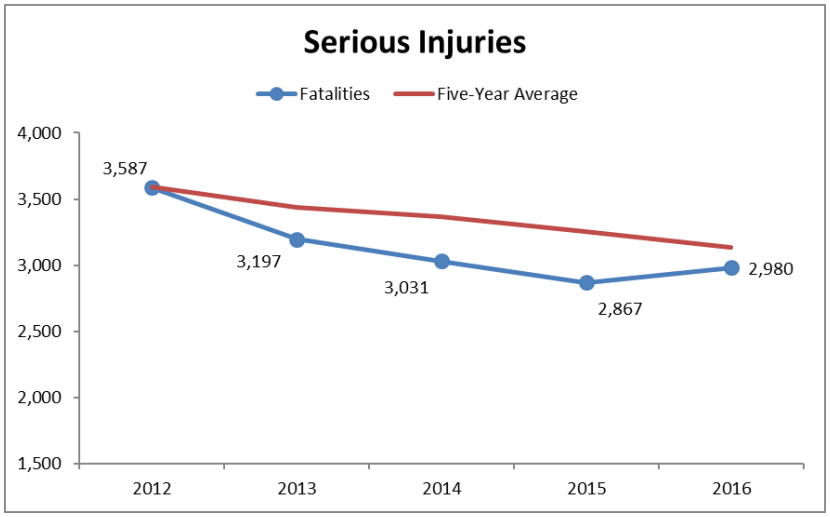
For the FFY 2019 HSP, EOPSS/OGR/HSD is projecting that the five-year average for traffic fatalities will drop 3.61% from 367 in 2016 to 353 by December 31, 2019. Historical data suggests that the 395 deaths reported in 2016 will be an outlier and that data from 2017 and 2018 should show a return to the norm. As the chart below shows, the 383 reported fatalities in 2012 was followed by three years with lower totals. At this time, RMV has reported very preliminary fatalities for 2017 with 350, which would validate the outlier designation for 2016.



EOPSS/OGR/HSD is also confident that the slate of planned activities for FFY 2019 will help to further reduce traffic fatalities as the integrated approach of enforcement, education and media outreach positively impacts occupant and non-occupant behaviors on the roadways of Massachusetts.

C-2 Serious Injuries

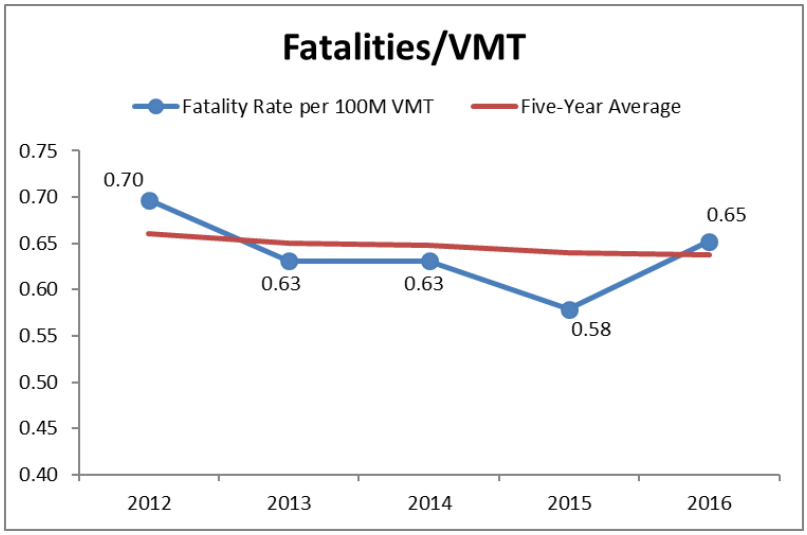
For FFY 2019, EOPSS/OGR/HSD projects that the five-year average for serious injuries will decrease 10.6% from 3,132 in 2016 to 2,801 by December 31, 2019. Since 2012, serious injuries have been declining and 2016 may simply be an anomaly. The projection for 2019 is reasonable given the average decline in actual serious injuries has been about 4% per year since 2006.



EOPSS/OGR/HSD expects its FFY 2019 planned activities to have a positive impact on serious injuries with enforcement, education and media campaigns aimed at increasing safety awareness, especially wearing seat belts, distractions, impairment and maintaining reasonable speeds. Each person that wears a seat belt, drives attentively, soberly and under control increases his/her chances of surviving a crash with minimal or no injuries.

C-3 Fatalities/VMT

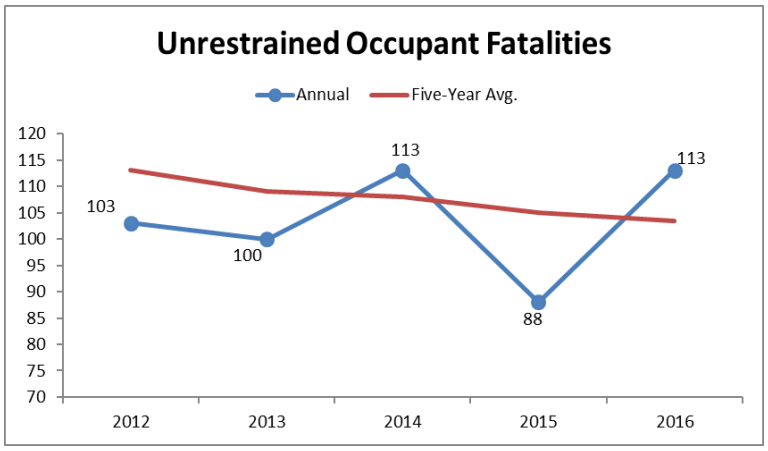
For FFY 2019, EOPSS/OGR/HSD projects the five-year average for fatalities/VMT will drop 8.72% from 0.64 in 2016 to 0.58 by December 31, 2019. In 2016, the number of fatalities reported (395) is, based on longitudinal data, expected to be an outlier, and in the next couple of years the number of fatalities will decrease. At the same time, VMT is expected to continue rising, since 2007 it has increase an average of 1.2% each year - and the combination of higher VMT and lower fatalities in the next 2-3 years will lead to lower fatality/VMT rates.



Preliminary fatality data for 2017 from RMV indicates the number of motor vehicle-related fatalities is 350. With the VMT expected to increase at least 1% in 2017, the fatalities/VMT rate will likely drop to 0.57, making progress towards the goal of a five-year average of 0.58 in 2019.

C-4 Unrestrained MV Occupant Fatalities

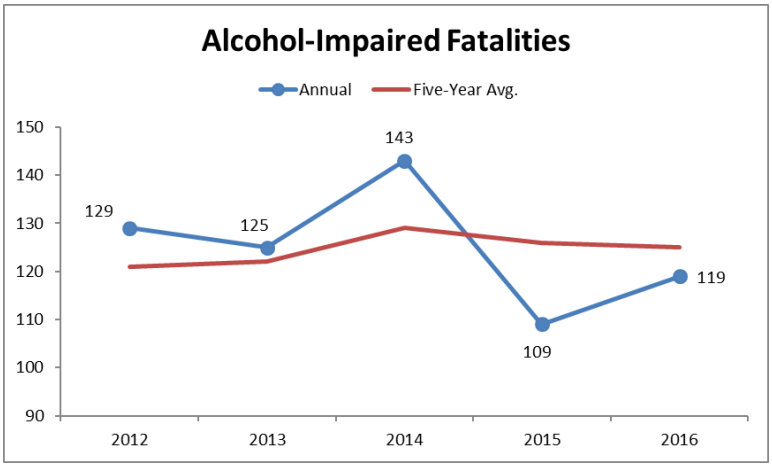
For FFY 2019, the performance target is to decrease the five-year average for unrestrained passenger vehicle fatalities 5% from 102 in 2016 to 97 in 2019.



As the chart above shows, the five-year average for unrestrained passenger vehicle fatalities continues its downward trend despite the fluctuations in the yearly fatalities reported. The trend line equation for the five-year results has an r-squared value of 0.9789, which means a projected outcome of 94.4 is highly likely in 2019. Given the recent 29% increase in fatalities from 2015 to 2016 as well as the drop in the seat belt usage rate from 78 to 74 in 2017, a more modest goal of 97 was chosen.

C-5 Alcohol-Impaired Driving Fatalities (BAC = 0.08 or higher)

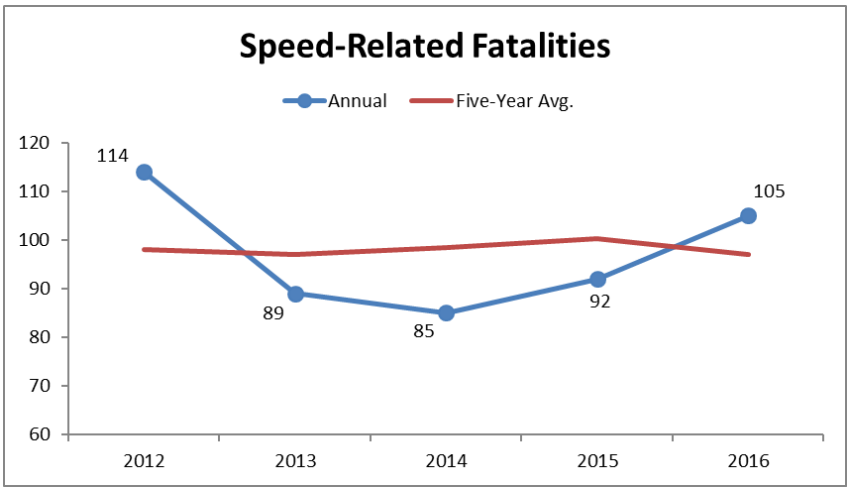
For FFY 2019, the performance target is to decrease alcohol-impaired driving fatalities 5% from the five-year average of 126 in 2016 to 119 by December 31, 2019.



Alcohol-impaired fatalities have fluctuated over the past five years, ranging from a high of 143 to a low of 109. The R-squared value for yearly alcohol-impaired driving fatalities reflects these fluctuations, 0.3495. The R-squared value for five-year average is even lower, 0.2051. Both values provide evidence that future alcohol-impaired fatality projections are largely unpredictable. Based on the slight decline in five-year averages from 2015 to 2016 (-1%) and the 23% decline in annual alcohol-impaired fatalities since 2007, a conservative projection of a 5% drop in five-year values by 2019 is reasonable.

C-6 Speeding-Related Fatalities

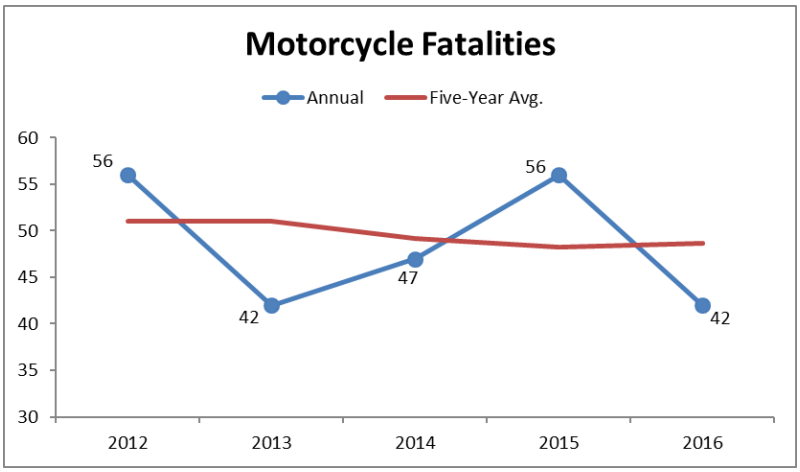
For FFY 2019, the performance target is to decrease speed-related fatalities 3% from the five-year average of 97 in 2016 to 94 by December 31, 2019.



Despite the increase in annual speed-related fatalities between 2015 and 2016, the five-year average declined 3% during the same period (100 to 97). Furthermore, since 2007 the number of speed-related fatalities have dropped 27% from 143 to 105. Speeding/aggressive driving-related violations issued by state and local police have decreased 27% from 2012 to 2016 (366,037 to 268,114), which may be a factor in the increase in speed-related fatalities. Yet, the year in which speed-related fatalities were the highest (2012, 114 deaths), the number of violations issued was also the highest. So, the actual impact of the number of violations on speeding and aggressive driving behavior is unclear.

C-7 Motorcyclist Fatalities

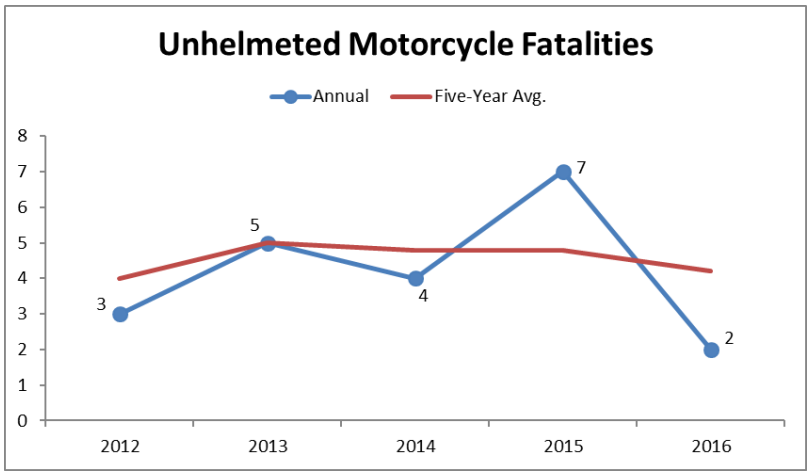
For FFY 2019, the performance target is to decrease motorcyclist fatalities 5% from the five-year average of 49 in 2016 to 46 by December 31, 2019.



Motorcycle fatalities declined 25% from 2015 to 2016 and are down 32% in since 2007. Despite these positive trends, the five-year average increased 2% from 2015 to 2016. The R-squared value for five-year average, 0.8205, indicates a high likelihood that the projected outcome for 2019, a five-year average of 46, will occur. The R-squared value for annual motorcycle fatalities is 0.0984, a result of the fluctuations in numbers from year-to-year.

C-8 Unhelmeted Motorcyclist Fatalities

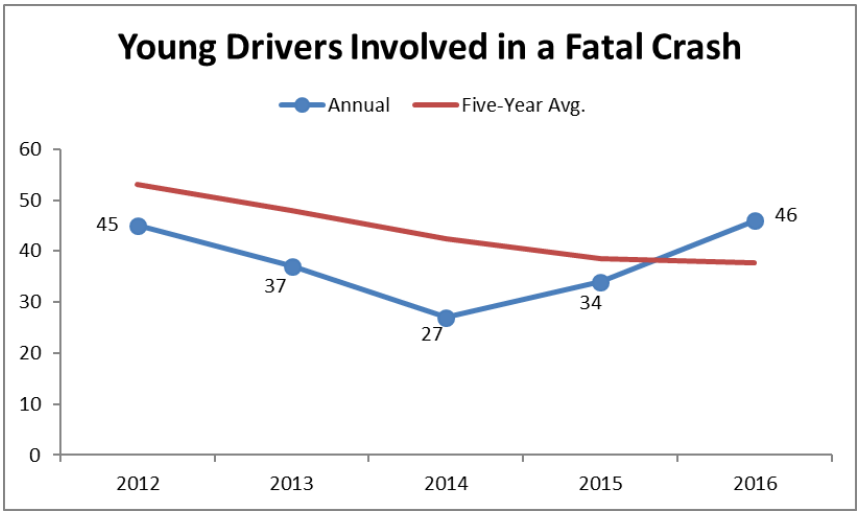
For FFY 2019, the performance target is to decrease unhelmeted motorcycle fatalities 25% from the five-year average of 4 in 2016 to 3 by December 31, 2019.



Unhelmeted motorcycle fatalities declined 71% in 2016 from seven to two in 2015. The five-year average dropped 20% from five in 2015 to 4 in 2016 and since 2007, unhelmeted fatalities have decreased 39%. All three data points (one-year, five-year average, ten-year) show that unhelmeted motorcyclists fatalities are in a downward trend. Despite the overall decline in unhelmeted motorcycle fatalities, both R-squared values for annual and five-year average fatalities are zero and 0.0053 respectively. This means there is much unpredictability in the future projections of both annual and five-year average for unhelmeted motorcycle fatalities. Notwithstanding the poor R-squared values, outlook on unhelmeted motorcycle fatalities are, in general, positive and a 25% decline from the five-year average of 4 to 3 is reasonable. The large percentage change is due to the small values in the analysis, but the expectation is to see unhelmeted fatalities drop below four over the next few years.

C-9 Young Drivers (Age 20 or younger) Involved in a Fatal Crash

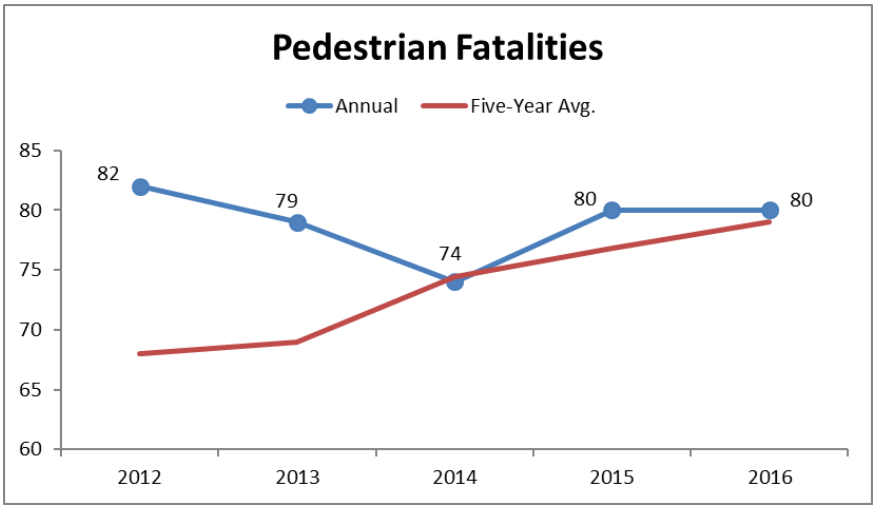
For FFY 2019, the performance target is to decrease the number of young drivers (age 20 or under) involved in fatal crashes 5% from the five-year average of 38 in 2016 to 36 by December 31, 2019.



After hitting an all-time low of 27 in 2014, the number of drivers under 21 years of age in a fatal crash has increased 70% to 46 in 2016. While this is worrisome, the five-year average for 2012-2016 is 38. From 2007-2011, the five-year average was 59. Over the course of two five-year periods, the average number of drivers involved dropped 36%. Furthermore, the R-squared value for five-year average in the chart above was 0.9477 and projected a five-year average of 24 by the end of 2019. The R-squared value for annual numbers was 0.0053 meaning there is unpredictability ahead. Taking the recent uptick in driver involvement, a conservative projection of a 5% reduction in the five-year average from 2016 to 2019 is reasonable.

C-10 Pedestrian Fatalities

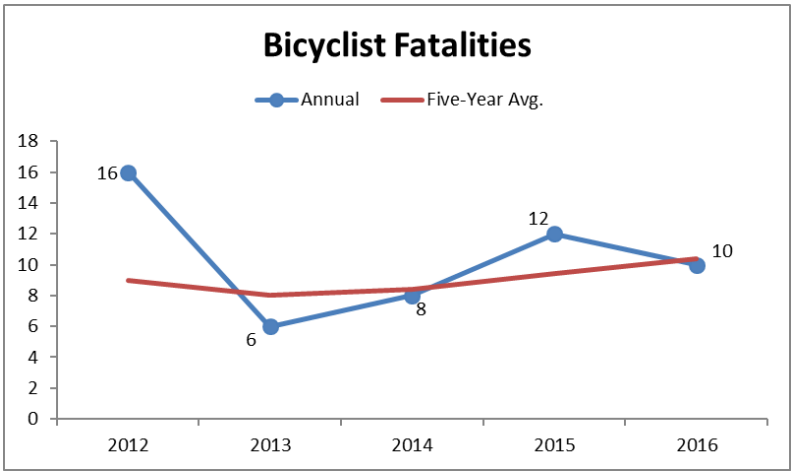
For FFY 2019, the performance target is to decrease pedestrian fatalities 5% from the five-year average of 79 in 2016 to 75 by December 31, 2019.



In 2016, pedestrian fatalities remained unchanged at 80. The five-year average increased slightly from 77 in 2015 to 79. It was the sixth consecutive year in which the five-year average was higher than the previous year. To counter this rise in five-year average, EOPSS/OGR/HSD is increasing the funding pool for the FFY 2019 Pedestrian Safety Enforcement Grant in order to entice more local law enforcement agencies to apply. An increase in agencies participating will result in more enforcement patrols aimed at improving pedestrian safety, with increased focus on areas of high pedestrian fatalities over the past five years such as Boston and Springfield. This development is expected to help reduce pedestrian fatalities in the near future. The estimated five-year average for 2019 will be 75, a 5% drop from 79 in 2016, which is a very conservative, yet reasonable, estimate.

C-12 Bicyclist Fatalities

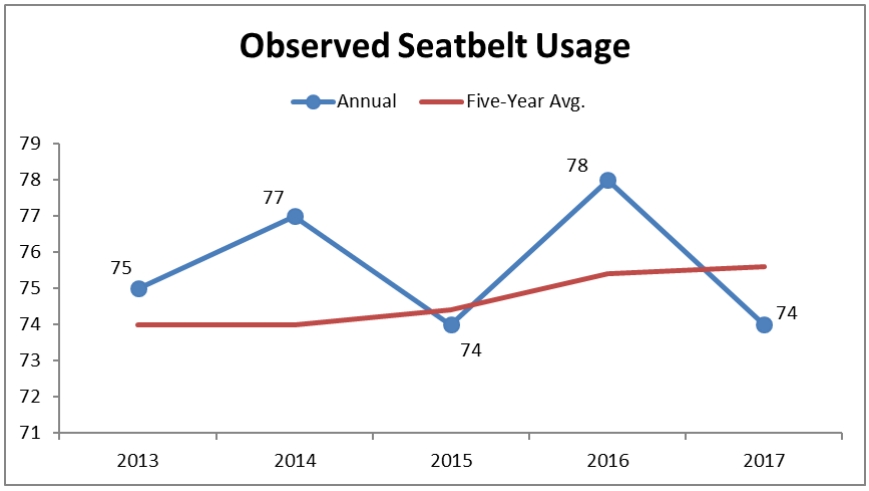
For FFY 2019 HSP, the performance target is to decrease bicyclist fatalities 10% from the five-year average of 10 in 2016 to 9 by December 31, 2019.



Bicyclist fatalities declined 10% in 2016, down to 10 from 12 in 2015. The five-year average rose 11% from 9 to 10 in the same period. The recent unpredictability of bicyclist fatalities - from 16 in 2012 to 6 in 2013 to 12 in 2015 - has resulted in an R-squared value of 0.0608 associated with its trend line equation. As with pedestrian fatalities, the increased funding for the FFY 2019 Pedestrian and Bicyclist Enforcement grant will help lead to a reduction in bicyclist fatalities in the future.

B-1 Observed Seat Belt Usage Rate

For FFY 2019 HSP, the performance target is to increase the observed seat belt usage rate 3% from the five-year average of 76 in 2017 to a five-year average of 78 by December 31, 2019.

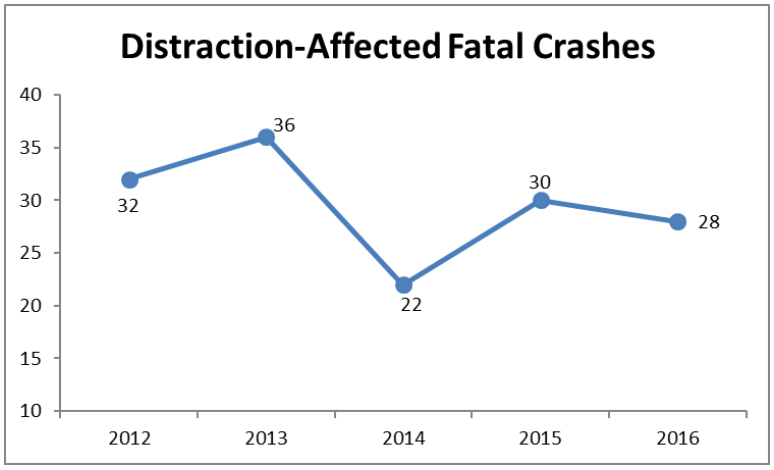


The Massachusetts observed seat belt usage rates have been erratic, rising to 77 percent in 2014 and then sliding back to 74 percent the next year. A similar thing occurred again in 2016 with an increase to 78 percent, followed by a reduction in 2017 to 74 percent. For the 2018 Observational Seat Belt Survey, all observation locations (approximately 148) were reselected per federal guidelines, which requires location reselection every five years. The reselection methodology has been revised and updated by the federal government to ensure better representation of heavily traveled roadways as well as higher proportion of counties with the larger percentage of fatal crashes being included. The inconsistent nature of past survey results leads EOPSS/OGR/HSD to project a conservative increase of 3% in the five-year average from 76 in 2017 to 78 in 2019.

Non-Core Performance Measure Targets for FFY 2019

NC-1 Distraction-Affected Fatal Crashes

For FFY 2019, the performance target is to decrease the five-year average of distraction-affected fatal crashes 10% from 30 in 2016 to 27 by December 31, 2019. Since 2012, distraction-affected crashes have accounted for 9% of all fatal crashes in Massachusetts - similar to the national average. The trendline equation for distraction-affected fatal crashes predicts a drop to a five-year average of 23 by December 31, 2019. Given the low R-squared value associated with the equation (near zero) and the up-and-down of the year to year fatal crashes, EOPSS/OGR/HSD feels 23 is a bit of a reach. Therefore, a more modest projection of 27 is expected by 2019.



EOPSS/OGR/HSD expects the distracted driving enforcements along with the new higher education and community-based traffic safety program will have an impact on driver behavior in the future, leading to a lower rate of distracted driving across the state.

Traffic Records Performance Targets for FFY 2019

TR-1 Number of Linked Massachusetts EMS/crash reports

For FFY 2019, EOPSS/OGR/HSD seeks to improve the integration of the Commonwealth's traffic records systems by increasing the number of linked Massachusetts EMS/crash reports from 0% to 75% from January 1, 2018 to December 31, 2018. With linked EMS/crash reports, traffic safety stakeholders (hospitals, ambulance services, law enforcement, researchers) will get a fuller picture of the impact of a crash on occupants. As of spring 2018, the project subrecipient had run the first attempt at a linkage, using approximately 118,700 EMS patient records and 75,000 Crash Data System records with crashes where police reported EMS transport. The result of this initial effort was a 30% linkage match. The subrecipient is currently studying these results in order to design the next linkage attempt.

TR-2 Improve Accuracy and Completeness of RMV's Crash Data System

For FFY 2019, EOPSS/OGR/HSD aims to improve the accuracy and completeness of the Registry of Motor Vehicles' Crash Data System by decreasing the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,487 between April 1, 2017 and March 31, 2018 to 1,425 or less between April 1, 2018 and March 31, 2019. This target builds off of the Interim Progress Report related to improvements in accuracy and completeness for the

Massachusetts Registry of Motor Vehicles' Crash Data System that EOPSS/OGR/HSD submitted as part of its FFY 2019 Section 405c application. This target is connected to five projects submitted as part of EOPSS/OGR/HSD's FFY 2019 Section 405c application.

TR-3 Number of Ambulance Services Submitting NEMSIS Version 3.0

For FFY 2019, EOPSS/OGR/HSD seeks to improve the completeness of MATRIS by increasing the number of ambulance services submitting NEMSIS Version 3 reports to the system from 0 between April 1, 2017 and March 31, 2018 to 3 or more between April 1, 2018 and March 31, 2019. This target was developed in consultation with the Massachusetts Department of Public Health as part of its two Section-405c funded projects to improve its Massachusetts Ambulance Trip Record Information System – MATRIS. These two projects were submitted as part of EOPSS/OGR/HSD's FFY 2019 Section 405c application.

Version 2 had 330 ambulance services submitting and as of June 30, 2018, zero ambulance services have been submitting on Version 3. According to MPH, the rollout and adaptation of ambulance services on the latest version (3.0) will take some time as bugs and glitches will certainly need to be addressed and ironed out.

TR-4 Number of Intersections with Fundamental Data Elements (FDEs)

For FFY 2019, EOPSS/OGR/HSD aims to improve the completeness of the Massachusetts statewide road inventory database by increasing the number of intersections with Fundamental Data Elements (FDEs) from 0 as of June 30, 2017 to 5,400 as of December 31, 2018. In spring 2018 the project subrecipient made initial progress on entering intersections into the online application for collecting this data, however modifications to the tool need to be made. It is estimated approximately 300 intersection will have been entered by June 30, 2018.

TR-5 Development of a new MassTRAC

With the closure of the MassTRAC online data platform during FFY 2018, the Massachusetts TRCC plans to develop a tentative business plan for a new MassTRAC by September 30, 2018.

Required grant-funded enforcement activity measurements as of FFY 2017:

- Number of seat belt citations issued during grant-funded activities – 2,784
- Number of impaired driving arrests made during grant-funded enforcement activities – 261
- Number of speeding citations issued during grant-funded enforcement activities – 4,991

Reporting grant-funded enforcement activity for FFY 2017 is requested by NHTSA as a means to compare year-to-year enforcement activity and effectiveness. EOPSS/OGR/HSD does not have to provide a projected target for these activities for each FFY.

Program Area (AL): Impaired Driving

Preventing impaired driving deaths has always been a top priority for Massachusetts. In recent years, EOPSS/OGR/HSD has funded projects such as Drive Sober or Get Pulled Over mobilizations with state and local police, Educational Outreach to Young Drivers (aimed at high school students); MSP Drug Recognition Expert (DRE) training; Sobriety Checkpoints; Standardized Field Sobriety Test training and; the Sustained Traffic Enforcement Program (STEP), all in an effort to reduce impaired driving crashes across the Commonwealth.

In 2016, the number of alcohol-impaired fatalities (involving driving with BAC 0.08 or higher) increased to 119 from 109 in 2015 - a rise of 9%. Despite the recent uptick, since 2007 alcohol-impaired fatalities have declined 23%. In 2016, alcohol-impairment accounted for 31% of all fatalities - down from 32% in 2015.

Persons Killed by County (Highest BAC in Crash = .08+)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	% of Total
Barnstable	13	5	5	7	6	9	6	6	3	6	66	5.4%
Berkshire	1	6	7	4	5	6	3	1	5	2	40	3.3%
Bristol	23	15	12	16	19	19	16	17	15	19	171	14.0%
Essex	19	9	11	12	18	13	11	10	5	10	118	9.6%
Franklin	1	0	0	1	1	1	3	0	2	3	12	1.0%
Hampden	15	10	16	11	9	12	12	17	8	16	126	10.3%
Hampshire	4	3	5	2	1	3	2	4	2	0	26	2.1%
Middlesex	22	14	16	13	21	13	12	11	15	12	149	12.2%
Norfolk	6	11	14	11	7	13	12	18	11	12	115	9.4%
Plymouth	18	19	5	8	12	14	17	21	9	14	137	11.2%
Suffolk	12	6	7	5	8	10	11	11	5	8	83	6.8%
Worcester	20	22	8	24	21	16	18	16	16	20	181	14.8%
	154	**120**	**106**	**114**	**128**	**129**	**123**	**132**	**96**	**122**	**1224**	

Worcester and Bristol counties had the highest number of alcohol-impaired fatalities from 2007 to 2016. These two counties account for nearly 30% of all alcohol-impaired fatalities. While Worcester and Bristol counties are a priority area of focus for EOPSS/OGR/HSD grant programs, other counties have seen their alcohol-impaired fatalities rise over the past five years. Norfolk County went up 25% from 2012 to 2016, (66) compared to 2007-2011 (49). Plymouth County increased 21% and Suffolk County rose 18%. In contrast, Essex and Middlesex counties saw alcohol-impaired fatalities drop over 27% from 2007-2011 to 2012-2016.

Since 2010, there have been 731 reported fatal crashes in Massachusetts with driver alcohol involvement. Boston leads all communities with 47 driver alcohol-involved crashes over the past seven years, followed by Worcester (21) and Springfield (19). This is hardly surprising given these are the three largest communities in Massachusetts. However, as a percentage of all motor vehicle-related fatalities, Norwood tops the pack with 67% of all fatalities attributed to driver alcohol involvement. Mansfield and Swansea, two Bristol County communities, are second and third with 63% and 59%, respectively.

City	Total Fatalities (2010-2016)	Alcohol Involved Fatalities	% Alcohol Involved Fatalities of Total Fatalities
BOSTON	160	47	29.4%
WORCESTER	67	21	31.3%
SPRINGFIELD	61	19	31.1%
BROCKTON	47	16	34.0%
NORWOOD	18	12	66.7%
WESTPORT	25	11	44.0%
DARTMOUTH	26	10	38.5%
FALL RIVER	36	10	27.8%
MANSFIELD	16	10	62.5%
QUINCY	30	10	33.3%
SWANSEA	17	10	58.8%

Five of the eleven towns (Westport, Dartmouth, Fall River, Mansfield, and Swansea) listed above for highest driver alcohol involvement in a crash are in Bristol County, which is one of the top two counties for fatal crashes involving drivers with BAC 0.08 or higher. In fact, eight of the 11 towns listed in the chart above are located in counties in southeastern Massachusetts (Bristol, Norfolk, and Plymouth). EOPSS/OGR/HSD will be making a concerted effort at outreach to communities within these three counties to increase participation in FFY 2019 grant funded activities aimed at lowering impaired driving.

Alcohol-involved fatal crashes occurred more often on Saturday and Sunday, 47% of all crashes and most often in the month of July, 14% of all crashes. Alcohol-involved crashes tended to occur with more frequency in the second half of the year (July thru December) compared with the first six months. Crashes during the first six months accounted for 41%; whereas, July thru December represented 59% of all crashes.

Alcohol-Involvement in Fatal Crashes by Day-of-Week

	2012	2013	2014	2015	2016	Total	% of Total
Sunday	24	24	26	13	20	107	22.4%
Monday	10	8	10	8	8	44	9.2%
Tuesday	12	11	7	9	9	48	10.1%
Wednesday	7	6	11	1	13	38	8.0%
Thursday	14	7	6	14	12	53	11.1%
Friday	11	15	14	17	15	72	15.1%
Saturday	22	25	27	15	26	115	24.1%
	100	**96**	**101**	**77**	**103**	**477**	

Alcohol-Involvement in Fatal Crashes by Month							
	2012	**2013**	**2014**	**2015**	**2016**	**Total**	**% of Total**
January	7	0	6	9	5	27	5.7%
February	8	8	4	1	6	27	5.7%
March	6	8	5	3	5	27	5.7%
April	11	6	4	8	8	37	7.8%
May	4	4	13	10	12	43	9.0%
June	6	5	10	5	9	35	7.3%
July	13	14	12	17	9	65	13.6%
August	8	9	8	4	10	39	8.2%
September	10	11	7	5	10	43	9.0%
October	7	10	10	4	10	41	8.6%
November	13	15	12	8	9	57	11.9%
December	7	6	10	3	10	36	7.5%
	100	**96**	**101**	**77**	**103**	**477**	

EOPSS/OGR/HSD will have two impaired driving mobilizations take place during the year - Drive Sober or Get Pulled Over in August and December. Subrecipient towns that participate in traffic enforcement mobilizations have the flexibility, based on local data, to do enforcement patrols during other periods of 'high impaired driving' activity.

While weekends are the top days for driver alcohol-involved fatal crashes, time of day is also a key component for identifying 'when' enforcement patrols should take place. Of the 477 crashes reported from 2012 to 2016, 68% took place between 6:00 pm and 3:00 am. The time between midnight and 2:59 am accounted for 44% (142) of the crashes. Early morning hours on Friday, Saturday and Sunday were the top day/time combination.

As in previous years, EOPSS/OGR/HSD will relay critical data trends to subrecipients, such as having a higher focus on enforcement during the weekend, in order to decrease the incidence of impaired driving.

Performance Measure for Program Area

C-5 Number of fatalities in crash involving a driver or motorcycle operator with a BAC of .08 and above

Countermeasure Strategies to be Implemented

The selected countermeasures are derived from NHTSA's "Countermeasures That Work – 8th Edition" and can be found online at the following URL: https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478_countermeasures-that-work-a-highway-safety-countermeasures-guide-.pdf

Underage Drinking Enforcement

In 2016, 11% of alcohol-involved fatal crashes had a driver under 21 years of age, up from 9% in 2015. To counter this increase, three planned activities will help to reduce the number of impaired underage drivers on the roads. The Drive Sober or Get Pulled Over (DSOGPO) mobilization (AL-19-02, Local Police Impaired Driving Enforcement), MSP Sobriety Checkpoints (AL-19-03), and ABCC's underage drinking compliance checks (AL-19-11) will all have as one of its priorities to look out for underage drivers that may be under the influence of alcohol.

SFST Training

Standardized Field Sobriety Training (AL-19-09) classes help law enforcement better detect impaired drivers during sobriety checkpoints, traffic stops and at the scene of motor vehicle crashes. Increased awareness of driver impairment by officers will lead to safer roads as drivers are arrested and eventually have their license suspended for anywhere from one year to lifetime.

Through the Massachusetts Police Training Committee (MPTC), SFST classes will be offered at various locations across the state throughout FFY 2019. With an emphasis on attracting more officers from counties with high alcohol-involved crashes, MPTC will offer multiple classes in or near Bristol, Plymouth, and Weymouth counties. As more officers are trained in SFST, along with those receiving DRE designation, more impaired drivers will be removed from the roads, therefore making the roadways safer and less dangerous.

Publicized Sobriety Checkpoints

By publicizing sobriety checkpoints, drivers are made aware beforehand of upcoming activity by law enforcement in an attempt to warn of the potential dangers (arrest, jail, fines) of drinking and driving. In FFY 2019, MSP will utilize sobriety checkpoints and saturation patrols (AL-19-03) regularly in various locations across the state. EOPSS/OGR/HSD will promote each sobriety checkpoint through press releases and on the Mass.gov portal, while MSP will do the same in an effort to alert as many drivers as possible. An effort will be made by MSP to conduct sobriety checkpoints during peak impaired driving periods such as nights and early morning hours on Thursday, Friday, and Saturday as well as around popular drinking times – New Year's Eve, Fourth of July, and Labor Day.

Using sobriety checkpoints regularly while conducting statewide enforcement mobilizations (DSOGPO, CIOT) during FFY 2019, along with supporting media campaigns, will help reduce the desire of drivers to engage in harmful behaviors like impaired driving.

Preliminary Breath Test (PBT) Devices

A preliminary breath test (PBT) device is a small hand-held alcohol sensor used by law enforcement to estimate a driver's blood alcohol level to establish evidence for a DWI arrest. There are several PBTs on the market that are quite accurate and generally reliable. This device is typically used as a pre-arrest screening technique, along with Standardized Field Sobriety Tests (SFST), to help an officer determine probable cause for a DWI arrest. It is normally the final field sobriety test conducted by police.

By funding the purchase of more PBTs for distribution to State and local police officers, it will provide another tool for law enforcement to use when dealing with possible impaired drivers. Although PBT results are currently inadmissible in Massachusetts courts (law does not recognize validity of results), officers can utilize the device to help in situations where the driver is injured and cannot perform the normal SFST as well as enforce "zero tolerance" for drivers under 21 years of age.

While DUI arrests do occur during sobriety checkpoints and grant-funded enforcement patrols, a large majority of DUI arrests take place during regular patrols. By having more PBTs available to officers across Massachusetts, there increases the opportunity to remove more impaired drivers from the roadways.

Planned activities in FFY 2019 that will utilize PBTs in some form include:

- AL-19-02 Local Police Impaired Driving Enforcement
- AL-19-03 MSP Sobriety Checkpoint & Saturation Patrols
- AL-19-04 Local Sustained Traffic Enforcement Program (STEP)
- AL-19-05 MSP STEP
- AL-19-07 MSP/Office of Alcohol Testing (OAT) Breath Test Operator (BTO) Training
- AL-19-09 MPTC Impaired Driving Law Enforcement Specialized Training

Integrated Enforcement

Impaired drivers are detected and arrested through regular traffic enforcement and crash investigations as well as through special impaired driving checkpoints and saturation patrols. A third possibility is to integrate impaired driving enforcement into special enforcement activities focused on other offenses such as speeding or lack of seat belt usage, especially since impaired drivers tend to have a high rate of involvement in speed-related crashes and are more likely not to wear a seat belt while driving. In Massachusetts, the Sustained Traffic Enforcement Program (STEP) provides selected communities with the funding to take this integrated enforcement approach to traffic safety. Not only do law enforcement departments patrol for impaired drivers but also for those speeding or driving aggressively, those not wearing a seat belt or have a young child not buckled into a safety restraint seat, and those failing to keep their eyes on the road because of a distraction, especially using or looking at a cell phone. The funding for STEP participants, both local and State Police, allows for increased enforcement throughout the year instead of simply during mobilization periods.

The implementation of STEP has allowed EOPSS/OGR/HSD to tackle myriad traffic safety issues – speeding, impaired driving, unrestrained fatalities, distracted driving – in one fell swoop through funding of communities with high fatality rates. Boston, Springfield, and Worcester, which are the top three cities for motor vehicle fatalities over the past five years, are among the participants in STEP since the pilot program kicked off in 2013. The local STEP project (AL-19-04) has sixteen towns involved – Barnstable, Boston, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Springfield, Taunton, Westfield, and Worcester. The MSP STEP project (AL-19-05) will involve all Troop Units across the state.

Impaired Driving Program (NHTSA Facilitated)

EOPSS/OGR/HSD has asked NHTSA Region 1 to conduct an impaired driving program assessment during FFY 2019. The assessment will help uncover possible deficiencies in EOPSS/OGR/HSD's impaired driving approach, organization and fund management. Finding areas of improvement will result in better implementation and oversight of planned activities associated with decreased impaired and drugged driving by EOPSS/OGR/HSD.

Highway Safety Office Program Management

The day-to-day operation of EOPSS/OGR/HSD requires funding to allow staff to properly oversee the impaired driving program. Lack of oversight due to reduced or no funding could lead to increased impaired driving fatalities on the roadways of Massachusetts.

High Visibility Saturation Patrols

A saturation patrol consists of a large number of law enforcement officers patrolling a specific area looking for possible impaired drivers. These saturation programs are typically publicized to deter drivers from getting behind the wheel after drinking by making it known there is a perceived risk of arrest. For FFY 2019, MSP will be conducting numerous high visibility saturation patrols – which have been extremely successful in previous years – in an effort to remove drivers who are impaired off the road as well as warn of the legal, financial, and social costs associated with a DWI arrest.

Saturation patrols are extremely effective when conducted during the same month as local impaired driving mobilizations are occurring. From 2012-2016, July and November accounted for 14% and 12%, respectively, of all alcohol-involved fatal crashes. In contrast, the months of Drive Sober or Get Pulled Over (DSOGPO) enforcement (August and December) accounted for 8% and 7%, respectively. Clearly, the combination of local police enforcement and MSP saturation patrols have an impact on the number of impaired driving crashes occurring in the month in which mobilization take place. Furthermore, saturation patrols – when done regularly throughout the year – will drive changes in driver behavior as the continuous existence, rather than only being during a specific time frame like DSOGPO, will be a constant reminder of the inherent dangers in drinking and driving.

Enforcement of Drug-Impaired Driving

The impairing effects of alcohol and the dangers of drinking and driving are well-documented. By contrast, there is very little research available examining the potential dangers of drugged driving. Some of the challenges involved in determining a drug's effect on driving include: the constantly changing list of drugs, illegal and legal, that can impair driving; the ambiguous relationship between blood levels of drugs and driving impairment; and the intrusive nature of measuring drug level compared to the mostly reliable breath tests for alcohol. To counter the unknown surrounding drugged driving, EOPSS/OGR/HSD has four planned activities aimed at increasing awareness as well as expertise among law enforcement when it comes to dealing with a possible drugged driver. The four activities are:

- AL-19-08 MSP Drug Recognition Expert (DRE) Training
- AL-19-09 MPTC Impaired Driving Law Enforcement Specialized Training
- AL-19-10 MPTC Drug Evaluation and Classification Program (DEC)
- AL-19-13 Local Underage Marijuana Enforcement Grant Program

By participating in these planned activities, Massachusetts law enforcement will be better prepared to assess the level of impairment of a suspected drugged driver.

Since 2012, there have been, on average, 1,580 DWI Drugs violations issued and 20 DWI Drugs arrests by local and State police. With the approval of Massachusetts voters in November 2018, marijuana has been approved to be legally purchased in the state. Due to this, there is a high likelihood the number of DWI Drugs violations and arrests will increase in the coming years. To counter this expected rise, the planned activities list above will help increase the number of police officers with expertise in the area of drug detection when dealing with a possible impaired driver.

DWI Courts

Based on the drug court model, DWI Courts are specialized courts dedicated to changing the behavior of DWI offenders through intensive supervision and treatment. A DWI Court's underlying goal is to change offenders' behavior by identifying and treating their alcohol and/or drug problems and holding offenders accountable for their actions. The two planned activities that fall under the DWI Courts countermeasure (AL-19-06, Judicial Education Relating to Highway Safety Strategies; PT-19-05, State Judicial Outreach Liaison) are aimed at improving the knowledge and expertise of the judges and prosecutors involved in DWI Courts. By improving the knowledge base of those involved in the DWI Court system, the correct course of action for offenders can be made with more confidence and ultimately lead to reduced numbers of DWI offenders coming through the courts.

In recent years, DWI Courts have been shown to be effective in reducing the recidivism rate of offenders and EOPSS/OGR/HSD is confident the two planned activities under this countermeasure will continue to lower the number of DWI offenders.

Drug Recognition Expert (DRE) Training

As the number of DWI drug violations hold steady over the last couple of years (average of 1,580), there is more need than ever to increase the number of Drug Recognition Experts (DREs) among the officers in State and local police. DREs can help determine whether a suspected impaired driver is under the influence of drugs and if so, what drug. While the use of DREs in the court of law has been contested, out in the field these officers provide crucial knowledge and support in the quest to remove drunk and drugged drivers off the road. The two planned activities that fall under this countermeasure (AL-19-08, MSP Drug Recognition Expert Training; AL-19-10, MPTC Drug Evaluation and Classification Program) will help increase the number of certified DREs in Massachusetts and ensure there are ample qualified DREs in all corners of the state.

Without the existence of DREs, it would be much tougher for officers to determine whether a driver is under the influence of drugs or not. The need for more DREs is even more pressing with the recent approval by voters to make marijuana legal in Massachusetts.

Communication Campaign

EOPSS/OGR/HSD has four planned media-oriented campaigns aimed at reducing the frequency of drunk or inebriated driving on the roadways of Massachusetts. Each of the four campaigns involved outreach and education of some type:

- AL-19-01 Impaired Driving mass media campaign running concurrently with two DSOGPO mobilizations
- AL-19-14 Statewide stakeholders conference to solicit feedback from local police on impaired driving issues
- AL-19-15 Impaired driving education and outreach in higher education (college campuses)
- AL-19-17 Road safety education outreach

Communication and education outreach campaigns are crucial to ensure the messaging about the dangers of impaired driving are consistent and impactful across the state.

Breath Test Devices

State and local police utilize breath test devices (typically called PBTs or preliminary breath test) to help establish evidence for a possible DWI arrest. At the current time, Massachusetts, along with 32 other states, use PBTs regularly. Having PBTs allows officers to remove drunk drivers from the road while provided factual evidence of inebriation in the courts that can result in license suspension. In Massachusetts, the first DWI conviction leads to a one-year license suspension; second DWI, two year suspension and ignition interlock device installed. The combination of the loss of driving privileges as well as the threat of losing those privileges will provide deterrence for drivers.

Having more officers certified to use breath test devices and having access to more PBTs will result in more drivers being pulled off the road for impaired operation. Breath test devices help officers gauge the possible impairment of a driver and if more impaired drivers are removed from the roadways, the number of impaired driving fatalities should decrease.

Alternative Transportation

This countermeasure is focused on prevention or intervention through communications and outreach. The pilot program funded under this countermeasure (AL-19-16) aims to provide either free or low-cost transportation options for people who have been drinking at times of the year when the risk of impaired driving is the highest (Christmas, New Year's Eve, Fourth

of July, St. Patrick's Day, Labor Day, and Super Bowl Sunday). This pilot program will help reduce the risk of impaired driving crashes from occurring by taking those who have been drinking off the road instead of allowing them the opportunity to try and drive home.

Alcohol Vendor Compliance Checks

To reduce the sale of alcohol to minors, which lowers the chance of underage drivers from navigating the roads under the influence, EOPSS/OGR/HSD will fund two planned activities – both to be conducted by the Alcohol Beverages Control Commission (ABCC) – that will focus on restricting access to alcohol by minors through compliance checks. Both activities (AL-19-11, Underage Drinking Compliance Checks; AL-19-12, Enforcement to Prevent Sale of Alcohol to Intoxicated Persons) will involve monitoring local vendors of alcoholic beverages to ensure that a) they aren't selling alcohol to minors by checking identification; and b) they aren't providing alcohol to persons that are clearly drunk or inebriated.

Planned Programming

AL-19-01 Impaired Driving Media

Develop and implement a statewide paid and earned media campaign to support impaired driving efforts during the Drive Sober or Get Pulled Over (DSOGPO) mobilizations in December 2018 and August 2019. EOPSS/OGR/HSD will use state and national crash and fatality data to identify the target audience. Messaging will focus on alcohol, marijuana, and other drug impaired driving. Earned media funds will promote and augment the paid campaign, while incorporating state laws and highlighting the work of state and local law enforcement agencies. Paid and earned media funds will also be used to direct messaging at teen drivers and their parents as part of the "100 Deadliest Days" from Memorial Day to Labor Day. EOPSS/OGR/HSD will contract with a marketing and advertising agency to execute these paid and earned media campaigns while running social media in-house for sustained educational efforts.

Internal policies will be followed noting that all media and communications activities should be in support of data-driven objectives and in coordination with other activities and programs, in particular, enforcement. Crash and citation data will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NTHSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Projected Budget: $ 750,000.00

CM Strategy Justification: Communication Campaign

AL-19-02 Local Police Impaired Driving Enforcement

Provide funds for overtime enforcement to local police departments for impaired driving patrols including, but not limited to, the Drive Sober or Get Pulled Over (DSOGPO) mobilizations in December 2018 and August 2019. Enforcement efforts will primarily focus on apprehending impaired motorists, although other violations such as speeding and failure to wear a seat belt will also be targeted. Patrols will be conducted during high risk times and locations based on the latest available state and local data. Eligibility will be based upon crash data, subtracting crashes the MSP responded to, and then normalized by state population. In FFY 2018, any community with a crash rate equal to or above 0.09 was deemed eligible for this program. For FFY 2019, the eligibility criteria may be adjusted.

Under this planned activity, participating departments may also request funding for equipment that can be utilized for alcohol-related traffic enforcement and associated public awareness efforts including, but not limited to, traffic safety message boards or signs, Preliminary Breath Test (PBT) units, simulators, mouthpieces, and supplies. Equipment will not be offered as incentives to participate, but rather as items that may assist in the apprehension and education of impaired drivers.

Projected Budget: $1,245,000.00

CM Strategy Justification: High Visibility Saturation Patrols; Underage Drinking Enforcement

AL-19-03 MSP Sobriety Checkpoint & Saturation Patrols

Provide funds for overtime for approximately 110 sobriety checkpoints and saturation patrols for the Massachusetts State Police (MSP) with support from the two Blood Alcohol Testing (BAT) mobile units whenever operationally possible. This planned activity will take place throughout the year in locations across Massachusetts determined through ongoing data analysis. The goals will be to deter motorists from driving while impaired and to apprehend impaired drivers.

Projected Budget: $ 1,400.000.00

CM Strategy Justification: Publicized Sobriety Checkpoints; High Visibility Saturation Patrols; Underage Drinking Enforcement

AL-19-04 Local Sustained Traffic Enforcement Program (STEP)

Local sustained enforcement of impaired driving laws will be conducted in selected communities. By using detailed data from MassTRAC, RMV, and FARS, hot spot communities will be identified as having the highest percentage of crashes in the Commonwealth with fatal or non-fatal injuries. Previous hot spots were Barnstable, Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Springfield, Taunton, Westfield and Worcester. The communities selected to participate for FFY 2019 may be adjusted. Local police departments in the selected areas will receive overtime funding to crack down on impaired driving and other traffic safety focus areas. A portion of the funding may be used for data entry and/or traffic data analysis.

Projected Budget: $ 677,500.00

CM Strategy Justification: Integrated Enforcement; Sustained Enforcement

AL-19-05 MSP Sustained Traffic Enforcement Program (STEP)

In support of impaired driving laws, this task will provide funds to the MSP to deploy sustained and selective “zero tolerance” traffic enforcement overtime patrols on the day/time/location identified by each respective State Police troop. This activity will be conducted to augment local police department efforts within the same general location as outlined in support of the local STEP activities. MSP STEP enforcement patrols will provide maximum visibility for deterrent purposes and saturate target areas, taking immediate and appropriate action on all motor vehicle violations, with particular focus on impaired driving.

Projected Budget: $ 250,000.00

CM Strategy Justification: Integrated Enforcement; Sustained Enforcement

AL-19-06 Judicial Education Relating to Highway Safety Strategies

This program will support judicial educational opportunities for Massachusetts judges, such as attendance at the New England Association of Drug Court Professionals (NEADCP) conference and the Massachusetts Judicial Institute sessions at the annual conference, as well as appropriate out-of-state training and conferences.

Projected Budget: $ 10,000.00

CM Strategy Justification: DWI Courts

AL-19-07 MSP/OAT BTO Training

Provide funds to the MSP Office of Alcohol Testing (OAT) to conduct up to 86 Breath Test Operator (BTO) classes for approximately 1,800 local and state police personnel in an effort to better detect impaired drivers. Trainings will take place throughout the year at the MPTC and other facilities. Funds will also be provided for the purchase of related program equipment including Preliminary Breath Test (PBT) units and OUI Toxicology kits. Equipment will be distributed to local police officers and state police troopers including those who successfully complete a DRE class conducted by the MPTC. MSP/OAT will determine how the equipment is divided among agencies based on problem identification and greatest need.

Projected Budget: $ 125,000.00

CM Strategy Justification: Breath Test Devices; Preliminary Breath Test (PBT) Devices

AL-19-08 MSP DRE Training

Funding will be provided to the MSP to expand their Drug Recognition Expert (DRE) program. With the legalization of recreational marijuana and the expansion of the utilization of marijuana for medicinal purposes, state police troopers are seeing a marked increase in people driving under the influence of this drug. As a consequence of the legalization of retail sale of recreational marijuana, there is a public perception, on the part of some, that the consumption of marijuana while operating a motor vehicle is both safe and legal. Other states that have passed similar legislation have experienced an increase in instances of drug impaired driving. The MSP will expand the DRE training program and train and equip 12 additional officers to assist troopers on the roadways. MSP's goal is to have at least one certified DRE in each barrack.

Projected Budget: $ 40,000.00

CM Strategy Justification: Enforcement of Drug-Impaired Driving; DRE Training

AL-19-09 MPTC Impaired Driving Law Enforcement Specialized Training Program (SFST)

Provide funds to the MPTC to conduct up to 22 trainings throughout FFY 2019 focused on SFST. Classes will include SFST Instructor, SFST Refresher, and three-day SFST course. This training will help law enforcement better detect impaired drivers during OUI checkpoints, traffic stops, and at the scene of motor vehicle crashes. Increased awareness of driver impairment by officers will lead to safer roads. Funding will also be used to support a part-time SFST Coordinator who will be responsible for implementing and maintaining the SFST training program statewide. Training will take place at various police departments across the state.

Projected Budget: $ 140,000.00

CM Strategy Justification: SFST Training

AL-19-10 MPTC Drug Evaluation and Classification Program (DEC)

Provide funds to the MPTC to conduct up to 37 training classes throughout the year for police officers covering Advanced Roadside Impaired Driving Enforcement (ARIDE) and Drug Evaluation and Classification (DEC). Funding will also support a part-time Drug Recognition Expert (DRE) Coordinator to attend DRE-related conferences and seminars, and for out-of-state travel to Maricopa County, Arizona for hands-on oversight of field evaluations for students seeking DRE certification. Funding will also be used to develop and maintain a DRE testing database as well as for tablets and associated software. The DRE coordinator will be required to submit an annual report that details all program activities.

Projected Budget: $500,000.00

CM Strategy Justification: Enforcement of Drug-Impaired Driving; DRE Training

AL-19-11 ABCC Underage Drinking Compliance Checks Program

Provide funds for overtime to the Massachusetts ABCC to conduct enhanced liquor enforcement compliance checks. The goals will be to prevent the sale of alcohol to individuals under 21 years of age and thus, prevent young drivers from driving impaired. ABCC investigators will perform compliance checks in approximately 150 communities. The program is designed to achieve broad geographical coverage throughout the Commonwealth in order to develop a deterrence impact created through wider knowledge among the industry retailers that their establishment could be subject to a compliance check at any time. The ABCC will cover all counties and reach the highest number municipalities within each country that is feasible. While maintaining this focus, they will try to re-check municipalities found to have a higher than average failure rate in previous years. Liquor establishments selected for compliance checks will either have a high failure rate for compliance, or ABCC hasn't conducted checks in that municipality or liquor establishment to date. Since the ABCC is in the process of completing their FFY 2018 program, the ABCC will begin the process of selecting communities for FFY 2019 in September or October of 2018.

Projected Budget: $ 175,000.00

CM Strategy Justification: Alcohol Vendor Compliance Checks; Underage Drinking Enforcement

AL-19-12 ABCC Prevent the Sale of Alcohol (SIP) to Intoxicated Persons

Provide overtime funds to the ABCC for investigators to participate in undercover operations at licensed establishments in approximately 40 communities to identify if the licensee serves intoxicated individuals. The ABCC will use data analysis to determine municipalities with the highest concentration of establishments that have been identified as the Place of Last Drink (POLD) for a convicted drunk driver. Factors such as number of alcohol-related fatalities and crashes, OUI violations, and violations for sales to underage individuals will be taken into account. Large urban municipalities with a high concentration of liquor establishments (i.e. Boston, Worcester) as well as communities with residential colleges or universities will be given priority. The ABCC will also conduct outreach to local police departments to ask if they can identify additional establishments that should be checked.

Projected Budget: $ 175,000.00

CM Strategy Justification: Alcohol Vendor Compliance Checks

AL-19-13 Local Underage Marijuana Enforcement Grant Program

Provide funds to local police departments that have licensed non-medical retail marijuana establishments within their jurisdiction to conduct enforcement activities focused on those businesses. This program will function in a similar manner as the "Cops in Shops" countermeasure used for alcohol law enforcement but instead will be directed at underage marijuana purchasers.

Departments will provide detailed monthly reports on various elements related to marijuana possession, usage, and transportation as well as additional data on any evidence of drugs or drug usage. These activities should lead to a decrease in incidences of drugged driving by young drivers. Subrecipients will be selected based up on data provided along key problem identification areas for their respective community such as number of marijuana-related motor vehicle traffic fatalities involving persons under 21, number of OUI drug arrests, and number of arrests made for marijuana possession by persons under age 21.

Projected Budget: $ 50,000.00

CM Strategy Justification: Enforcement of Drug-Impaired Driving

AL-19-14 Stakeholders Conference

Funding will be used to conduct conferences for traffic safety stakeholders. As in previous years, topics will include alcohol and drug impaired driving, occupant protection, distracted driving, motorcycle safety, pedestrian and bicyclist safety, traffic records, prosecution and adjudication, and speeding. The goal will be to initiate a dialogue with key local, state, federal, non-profit, and private sector leaders to identify highway safety program priorities, improve traffic safety, and establish focus areas for the FFY 2020 HSP. Locations and dates of conferences are yet to be determined.

Projected Budget: $ 5,000.00

CM Strategy Justification: Communication Campaign

AL-19-15 Higher Education Impaired Driving Media Program

Provide grant funds to a college or university to develop an impaired driving media campaign that resonates with younger drivers. The grant will be given to an academic department such as journalism, marketing, or one related to video/advertising production. It will be required that a department faculty member oversees the project including paying for student stipends, supplies, production costs, and travel.

The intent is to generate messaging that is conceptualized, developed, produced, and disseminated by young people to their peers. The end product(s) may be disseminated via social or earned media. The student workers will be given day-to-day guidance from the faculty member and also be able to work with the EOPSS/OGR/HSD staff and media vendor for additional direction. It is hoped that the end product(s) will be accepted by the target audience as peer-to-peer messaging, as opposed to government messaging.

Projected Budget: $ 10,000.00

CM Strategy Justification: Communication Campaign

AL-19-16 Alternative Transportation Program

This competitive grant program will provide funds to a state agency or non-profit organization to establish and coordinate a pilot Alternative Transportation program. As an alternative, a consultant may be hired to coordinate the program for EOPSS/OGR/HSD.

The grant recipient will work to develop a formal program built around partnerships with, and funding support from, transportation companies, ride share operators, restaurants, bars, alcoholic beverage wholesalers and retailers, entertainment venue operators, etc. A special focus will be placed on Places of Last Drink (POLD) identified by the ABCC.

The initial program will serve as a pilot and aim to provide free, or low-cost, safe transportation for specifically designated, short periods during the year that pose high risks for impaired driving crashes and fatalities, such as Christmas, New Year's, 4/20, Cinco de Mayo, 4th of July, St. Patty's Day, Labor Day, Super Bowl Sunday and so on. The pilot program will focus on select geographical areas that have the highest impaired driving problems that are identified with available data.

The program will also include an earned media effort that will promote the availability of the services. Private sector partners will be sought to promote the program via their respective online and/or brick and mortar entities.

According to NHTSA's "Countermeasures That Work," alternative transportation describes methods by which people can get to and from places where they drink without having to drive. Alternative transportation supplements normal public transportation provided by subways, buses, taxis, and other means. Ride service programs transport impaired persons to, from and sometimes between establishments using taxis, private cars, buses, tow trucks, and even police cars. Some will also drive the impaired person's car home as well.

Projected Budget: $ 35,000.00

CM Strategy Justification: Alternative Transportation

AL-19-17 Community-Based Impaired Driving Grant Program

Competitive and discretionary grant awards will be provided to one or more organizations such as Girl Scouts, Boy Scouts, PTOs, schools, faith-based and advocacy groups, etc., that will implement community-based programs. The eligible applicants may include both non-profit 501(c)(3) or governmental agencies.

This planned activity will consist of one or more data-driven competitive gran programs that will be focused in geographical areas and/or high risk populations that have demonstrated need in the area of impaired driving.

The programs will generally be focused on raising awareness of road safety, training, and changing social attitudes and behaviors in order to reduce vehicle crashes and their associated fatalities, serious injuries and economic losses on the state's roadways.

This will not be a traffic enforcement program, but EOPSS/OGR/HSD will encourage applicants to develop new or enhance existing partnerships with law enforcement agencies to achieve project goals.

Selected grant subrecipients will develop and implement traffic safety improvement educational and awareness programs that address issues in their targeted communities. Programs that focus on high risk groups or behaviors will be prioritized. Organizations will be encouraged to build partnerships that incorporate a whole-community, data-driven approach to identifying and addressing road safety problems. The formation of community-wide road safety coalitions that bring together a wide constituency to focus on aspects of road safety will also be encouraged.

Projects that will develop and implement educational curriculum that aim to install a life-long road safety culture in the Commonwealth's citizenry will also be prioritized. Projects may also incorporate social, and/or traditional media strategies to change risky behavior on the state's roadways.

The competitive grant solicitation may guide potential applicants to various informational resources such as:

- National Highway Traffic Safety Administration (NHTSA)
- Center for Disease Control and Prevention (CDC)
- Governors Highway Safety Association (GHSA)
- Insurance Institute for Highway Safety (IIHS)
- National Safety Council (NSC)
- American Automobile Association (AAA)
- The Vision Zero Network
- Mothers Against Drunk Driving (MDAA)
- Students Against Destructive Decisions (SADD)

Projected Budget: $ 25,000.00

CM Strategy Justification: Communication Campaign

AL-19-18 Impaired Driving Assessment

The EOPSS/OGR/HSD will call on NHTSA to conduct a review of the Impaired Driving Program in Massachusetts to identify gaps, needs, and strengths in order to improve strategies and programming. NHTSA recommends that each State, in cooperation with its political subdivisions and tribal governments, and other parties as appropriate, should develop and

implement a comprehensive highway safety program, reflective of state demographics, to achieve a significant reduction in traffic crashes, fatalities, and injuries on public roads.

Projected Budget: $ 30,000.00

CM Strategy Justification: Impaired Driving Program Assessment (NHTSA Facilitated)

AL-19-19 Program Management – Impaired Driving

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage and office supplies.

Projected Budget: $ 275,000.00

CM Strategy Justification: Highway Safety Office Program Management

Program Area (OP): Occupant Protection

Occupant protection refers to the use of seat belts, motorcycle helmets, booster seats, and child passenger safety (CPS) seats by motor vehicle occupants. Research has found that lap/shoulder seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. In 2016 alone, seat belts saved an estimated 14,668 lives (*Traffic Safety Facts: Lives Saved in 2016 by Restraint Use and Minimum-Drinking-Age Laws*, NHTSA, Report No. DOT HS 812 454). Despite the tremendous reduction in injury from using seat belts, Massachusetts still has not implemented a primary seat belt law, which would allow law enforcement to stop drivers for failure to wear a lap/shoulder seat belt. Currently, Massachusetts has a secondary enforcement seat belt law where police can issue citations for failure to wear a seat belt only if the original reason for pulling over the driver was related to a primary offense (i.e. speeding, going through a red light). The most recent Statewide Observational Seat Belt Survey, conducted in 2017, shows an effect of having no primary seat belt law. The survey found overall seat belt usage across the Commonwealth to be a paltry 73.7%, falling from the 78.2% rate in 2016. By comparison, national seat belt usage rate in 2017 was 89.7% and the usage rate in the northeast (CT, MA, ME, NH, NJ, NY, PA, RI, VT) was 86.5%. Massachusetts ranks 49th out of the 50 states for seat belt use. Each percentage point increase in seat belt usage, the number of motor vehicle occupants suffering life-threatening or life-altering injuries decreases. This is why Massachusetts makes occupant protection safety a top priority of its highway safety program.

In 2016, unrestrained occupant fatalities increased 20% from 88 in 2015 to 106, while the five-year average (2012-2016) declined 3% to 102 from 105 (2011-2015). Despite the recent increase, since 2007 unrestrained fatalities have declined 28% and unrestrained fatalities/VMT dropped from 0.27 to 0.17 representing a 37% decline. Unrestrained fatalities accounted for 47% of all occupant fatalities and 29% of all motor vehicle-related fatalities in 2016. Of the 113 unrestrained occupant fatalities reported in 2016, 77% were drivers and 21% passengers. 43 of the 87 (49%) unrestrained driver fatalities involved drivers as the only occupant of the vehicle. The annual Statewide Observational Seat Belt Survey consistently indicates that a person driving without a passenger is much less likely to be belted.

From 2007 to 2016, Worcester led all counties with 16% of all reported unrestrained occupant fatalities, followed by Bristol (15%) and Middlesex (13%). These three counties accounted for 44% of all reported unrestrained occupant fatalities.

Unrestrained Fatalities by County	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	% of All UR Fatalities
Barnstable	9	5	7	3	5	7	2	7	3	4	52	5%
Berkshire	1	7	4	6	1	5	3	2	4	3	36	3%
Bristol	26	20	18	16	27	16	13	8	12	20	176	15%
Essex	20	8	18	9	12	13	10	10	5	13	118	10%
Franklin	5	0	0	0	2	2	3	3	4	2	21	2%
Hampden	13	10	14	12	7	6	10	15	7	12	106	9%
Hampshire	5	1	4	0	4	1	2	4	1	4	26	2%
Middlesex	16	16	19	14	23	17	11	12	10	9	147	13%
Norfolk	12	9	16	9	9	6	9	18	8	9	105	9%
Plymouth	12	27	10	11	9	11	9	12	12	10	123	11%
Suffolk	8	3	3	2	8	5	1	7	5	9	51	4%
Worcester	25	16	14	20	15	13	27	15	17	18	180	16%
	152	**122**	**127**	**102**	**122**	**102**	**100**	**113**	**88**	**113**	**1141**	

From 2007 to 2016, Bristol County, at 38% has the highest percentage of unrestrained occupant fatalities followed by Essex County at 35%. Middlesex, which has 13% of the Commonwealth's unrestrained fatalities, has 28% of its fatalities (528) being unrestrained. Knowing the percentage of a county's unrestrained, versus total fatalities may indicate that low seat belt usage may pose increased risks in counties such as Bristol, Essex, Worcester and Middlesex.

County	Total Fatalities (2007-2016)	Total UR Fatalities (2007-2016)	% UR
Barnstable	193	52	27%
Berkshire	123	36	29%
Bristol	458	176	**38%**
Essex	342	118	35%
Franklin	62	21	34%
Hampden	337	106	31%
Hampshire	86	26	30%
Middlesex	528	147	28%
Norfolk	344	105	31%
Plymouth	382	123	32%
Suffolk	280	51	18%
Worcester	534	180	34%

Below is a chart covering 2010 to 2016 for the top 10 cities and towns for unrestrained fatalities as well as the percentage of each municipality's total unrestrained fatalities. While Boston has the highest number of unrestrained fatalities (32), it has the lowest percentage of unrestrained deaths (20%). The high number of fatalities for Boston is no doubt due to the large number of major highways (Mass Pike, I-93, Route 1, Route 9), and the high population in the capital city. Given that Bristol County has the highest percentage of unrestrained fatalities, it is not surprising that seven of the 17 towns listed are located within the county. If other nearby communities, such as Brockton and Middleborough, are included, then over half (nine of 17) of the towns with the most unrestrained fatalities are located in southeastern Massachusetts. EOPSS/OGR/HSD will make every effort to get as many southeastern towns and cities involved in occupant protection grant activities, such as the Click It or Ticket mobilization, in FFY 2019.

City	2010	2011	2012	2013	2014	2015	2016	Total Fatalities	Unrestrained Fatalities	% Unrestrained of Total
BOSTON	18	18	29	17	23	27	28	160	32	20%
SPRINGFIELD	5	8	9	10	11	6	12	61	15	25%
WORCESTER	11	12	7	9	7	12	9	67	14	21%
NEW BEDFORD	11	10	5	2	10	8	6	52	12	23%
TAUNTON	6	5	7	7	1	0	2	28	12	43%
FALL RIVER	3	6	9	1	1	5	11	36	11	31%
HOLYOKE	3	4	2	6	4	3	5	27	11	41%
MIDDLEBOROUGH	4	0	4	7	6	6	8	35	11	31%

BROCKTON	2	5	5	11	12	7	5	47	10	21%
DARTMOUTH	4	5	6	2	2	4	3	26	10	38%
ANDOVER	5	4	5	4	4	2	0	24	8	33%
EASTON	0	2	2	3	1	3	4	15	8	53%
NORWOOD	3	2	0	3	7	1	2	18	8	44%
RANDOLPH	2	1	4	1	5	4	4	21	8	38%
RAYNHAM	4	5	2	2	1	4	2	20	8	40%
WESTBOROUGH	0	0	0	1	2	4	3	10	8	80%
WESTFIELD	2	4	5	5	2	4	4	26	8	31%
WESTPORT	8	0	2	2	2	1	10	25	8	32%

With the key municipalities and regions of Massachusetts for unrestrained fatalities identified, determining the day-of-week, month-of-year, and occupant's age will help focus FFY 2019 occupant protection activities.

Day of Week - The top three days for unrestrained occupant fatalities were Saturday (237), Sunday (190), and Friday (173). These three days accounted for 53% of all unrestrained fatalities from 2007-2016.

Day of Week	UR Fatalities (2007-2016)	% of All UR Fatalities
Sunday	190	17%
Monday	134	12%
Tuesday	125	11%
Wednesday	155	14%
Thursday	134	12%
Friday	173	15%
Saturday	237	21%
Total	**1148**	

Month - While the distribution across the twelve months is generally consistent, the warmer months (May - August) recorded slightly higher levels of fatalities compared to other months.

Month of Year	UR Fatalities (2007-2016)	% of All UR Fatalities
January	95	8%
February	87	8%
March	78	7%
April	91	8%
May	104	9%
June	105	9%
July	113	10%
August	106	9%
September	86	7%
October	96	8%
November	96	8%
December	91	8%
	1148	

Age - Drivers and passengers under the age of 26 accounted for well over a third of all unrestrained fatalities from 2007-2016. Passenger unrestrained fatalities were highest for those between 16 – 25 years of age. Drivers in the 16-20 age group had a far lower fatality count than the 21 - 25 age group. This may be due to proximity (in terms of time, years) to recent driver education courses and JOL requirements, both of which would provide reinforced messaging about the need to wear seat belts. Of concern is how the number of unrestrained fatalities seem to have a downward trend after age 35 and then pick up again for drivers and passengers age 65 or older. Data is limited on the reason for this increase in older populations. It may be the result of a lower seat belt use rate and the additional health issues that exist in older populations.

Unrestrained Fatalities (2007-2016)

	Drivers	Passengers	Total	%
Under 16 years	2	14	16	1%
16 - 20	99	59	158	14%
21 - 25	161	59	220	19%
26-35	159	41	200	18%
36-45	103	15	118	10%
46-55	124	26	150	13%
56-65	103	13	116	10%
Over 65	125	36	161	14%
			1139	

Resources pertaining to FFY 2019 Occupant Protection programs will be focused on the southeastern region of Massachusetts (Bristol County, Plymouth County) to attract more municipalities to participate in the May 2019 Click It or

Ticket mobilization along with Worcester, Springfield and Boston. Any enforcement activity by law enforcement should occur more often during the Friday - Sunday period and with more emphasis on targeting locations or areas frequented by those under 25 and over 65 (i.e. shopping mall, main strip of community with high density of restaurants/bars/pubs).

Performance Measure for Program Area

C-4 Number of unrestrained passenger vehicle occupant fatalities, all seat positions

B-1 Observed seat belt use for passenger vehicles, front seat outboard occupants

Countermeasure Strategies to be Implemented

Sustained Enforcement

State police (OP-19-05) and select local police departments (OP-19-04) will deploy sustained and focused 'zero tolerance' traffic enforcement overtime patrols to target key time frames when occupant protection violations tend to occur within their respective community. The sustained enforcement activities will help decrease unrestrained fatalities across Massachusetts as the selected local police departments include high unrestrained fatality communities of Boston, Fall River, Springfield, and Taunton. By increasing police enforcement patrols in these high fatality cities, EOPSS/OGR/HSD expects to see a decline in unrestrained fatalities in coming years.

Short-term, High-Visibility Seat Belt Law Enforcement

The Click It or Ticket (CIOT) mobilization, conducted concurrently with the national campaign, is usually a two-week period of intense, highly publicized periods of seat belt law enforcement patrols and checkpoints. EOPSS/OGR/HSD will also provide communication support for the CIOT mobilization in the form of press releases, online advertising, print and traditional media (radio, television, electronic billboards).

As a low belt usage state, Massachusetts has been mired in the mid-70% range for seat belt usage. EOPSS/OGR/HSD expects the combination of an extensive communications outreach program and targeted enforcement activity during key time frames (Friday thru Saturday, 6pm to midnight, with focus on Bristol, Worcester, and Middlesex County) will lead to higher seat belt usage in the future. The planned activities under this countermeasure are:

- OP-19-02 Local Police Occupant Protection CIOT Enforcement Campaign
- OP-19-03 MSP Occupant Protection CIOT Enforcement Campaign
- OP-19-11 Occupant Safety and Impaired Driving Awareness Display Vehicle

For 2018, the seat belt usage rate was 82%. This is a testament to the impact of a short-term, high-visibility enforcement campaign and why EOPSS/OGR/HSD will continue with this strategy going forward.

Short-term, High-Visibility Child Restraint Law Enforcement

High-visibility short-duration seat belt law enforcement programs such as Click It or Ticket (CIOT) have proven to be an effective countermeasure for improving the seat belt usage rate in Massachusetts. For FFY 2019, as in previous years, EOPSS/OGR/HSD will be tracking the number of child seat violations that occur during the course of CIOT enforcement patrols, along with a slew of other violations. In doing so, both the local and State police will sending a message to parents and caregivers that even if you (the driver) have a seat belt on, if the child or children in your car is/are not properly secured, you will be served noticed by law enforcement.

During the short-term, high-visibility enforcement periods, EOPSS/OGR/HSD will promote an occupant protection communications program across the state intended to raise awareness for using both seat belts (adults) and properly securing children in a car seat.

School Programs

Conducting information or educational sessions on traffic safety at schools has been shown to increase seat belt use as well as overall understanding of the importance of restraints while driving or riding in a vehicle. For FFY 2019, MSP plans to travel to various high schools across the state to conduct vehicle simulations to educate the public, or more specifically, young drivers (those 20 year of age or younger) on the necessity of wearing a seat belt anytime one is in a moving vehicle.

While young drivers make up a small portion (5% to 6%) of all unrestrained fatalities reported in Massachusetts from 2007-2016, making a lasting impression on these drivers will be critical to decreasing the rate of unrestrained fatalities among those over 21 years of age in future years. As today's teenagers move in their twenties, EOPSS/OGR/HSD see their continue adherence to wearing seat belts as a critical element to lowering the number of unrestrained fatalities over the next five- or ten-years.

Communication Campaign

For FFY 2019, EOPSS/OGR/HSD will develop and implement, through a contract with a marketing and advertising vendor, a statewide paid and earned media campaign to support occupant protection efforts during CIOT mobilizations. The target audience of the paid media campaign will be based on the lowest use populations identified in the annual seat belt observation survey. Earned media funds will promote the paid campaign, while incorporating state laws and highlighting the work of State and local law enforcement agencies. Paid and earned media funds will also be used for direct messaging aimed at teen drivers and their parents as part of the "100 Deadliest Days" campaign from Memorial Day to Labor Day as well as to parents and guardians of young children for Child Passenger Safety Week (September 15-21, 2019).

This online and offline occupant safety campaign will raise awareness among drivers and passengers about the importance of buckling up when in a motor vehicle by impression upon occupants how ridiculous excuses for not wearing a seat belt ("It's uncomfortable", "I was only going down the street", "I forgot") sound.

Communication campaign will be used at some point during the following planned activities for FFY 2019:

- OP-19-01 Occupant Protection Media
- OP-19-08 Child Passenger Safety (CPS) Statewide Information Line
- OP-19-09 Statewide Seat Belt Observation Survey
- OP-19-12 "Buckle Up" Road Signage
- OP-19-13 Higher Education Occupant Protection Media Program
- OP-19-14 Community-Based Occupant Protection Grant Program

Child Restraint System Inspection Stations

The misuse and/or incorrect installation of a child restrain seat has been a concern of EOPSS/OGR/HSD, medical professionals, and law enforcement for many years. An incorrectly installed car seats or using an outdated child restraint could result in serious or fatal injuries to the child in a motor vehicle crash. Child passenger safety (CPS) inspection stations, also called 'fitting stations', are location or events where parents and caregivers can receive instruction from certified CPS technicians on proper installation methods as well as have current car seats examined for usability and safety. In Massachusetts, all CPS grant subrecipients are required to offer at least two 'fitting stations' along with regular

hours (at least once a week) where parents and caregivers can go to for instruction, inspection, and education regarding car seats.

Through these 'fitting stations' attendees increase their knowledge on how to better restrain young passengers so a child's risk of injury in a crash is greatly reduced. Furthermore, attendance at these 'fitting stations' by parents and caregivers will lead to them passing on this information about car seats to other parents, family and friends – thus exponentially expanding the reach of critical knowledge about car seats – and encouraging other parents and caregivers to attend 'fitting stations' near them.

From 2007-2016, unrestrained fatalities accounted for a third of all motor vehicle-related fatalities. Passengers under 16 years of age were a mere 1% of all unrestrained fatalities but still 1% too many as youths are a) modeling their behavior after adults (who are not wearing seat belts); b) adults are installing car seats improperly or using defective/outdated seats; and c) or adults are simply not using car seats at all. For FFY 2019, there are two planned activities under this countermeasure:

- OP-19-06 Child Passenger Safety Equipment Grant Program
- OP-19-10 MSP Child Passenger Safety Car Seat Checkpoints
- OP-19-07 CPS Administration and Training

Both activities will receive an increase in funding compared to FFY 2018 in order to purchase and distribute more new federally-approved car seats, which should help reduce the number of unrestrained fatalities among children towards the desired goal of zero.

Highway Safety Office Program Management

The day-to-day operation of EOPSS/OGR/HSD requires funding to allow staff to properly oversee the occupant protection program. Lack of oversight due to reduced or no funding could lead to increased unrestrained fatalities on the roadways of Massachusetts.

Planned Programming

OP-19-01 Occupant Protection Media

Develop and implement statewide paid and earned media to support occupant protection efforts during the October and November 2018 and May 2019 Click It or Ticket enforcement mobilizations. The target audience of the paid media will be based on the lowest use populations identified in the annual seat belt observation study. Earned media funds will promote the paid media, while incorporating state laws and highlighting the work of state and local law enforcement agencies. Paid and earned media funds will also be used to direct messaging at teen drivers and their parents as part of the "100 Deadliest Days" from Memorial Day to Labor Day and to parents and guardians of young children for Child Passenger Safety Week. EOPSS/OGR/HSD will contract with a marketing and advertising agency to execute these paid and earned media campaigns while running social media in-house sustained educational efforts.

Internal policies will be followed noting that all media communications activities should be in support of data-driven objectives and in coordination with other activities and programs, in particular, enforcement. Crash and citation data will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Projected Budget: $500,000.00

CM Strategy Justification: Communication Campaign

OP-19-02 Local Police Occupant Protection Enforcement Campaign

Provide funds for overtime enforcement to local police departments for occupant protection patrols, including the May 2019 Click It or Ticket mobilization, to increase seat belt use. Additional patrols can also be conducted during other high risk times and locations based on the latest available state and local data. Eligibility will be based upon crash data, subtracting crashes the MSP responded to, and then normalized by state population. In FFY 2018, any community with a crash rate equal to or above 0.09 was deemed eligible for this program. This eligibility criteria may be adjusted for the FFY 2019 program. Under this project, participating departments may request fudning for equipment that can be utilized for occupant protection-related traffic enforcement and associated public awareness efforts. Equipment will not be offered as incentives to participate, but rather as items that may assist in the apprehension and education of unsafe drivers. EOPSS/OGR/HSD estimates a third (30%) of available funding distributed to subrecipients will be used to purchase equipment.

At this time, it is unknown what equipment subrecipients will purchase with allotted funding, but allowable items are anything associated with traffic enforcement and/or safety. Allowable equipment includes items such as approved handheld Radar and Lidar units, signage, crash reconstruction tools, cruiser cameras, tint meters, and signboards.

Projected Budget: $ 625,000.00

CM Strategy Justification: Short-term, High Visibility Seat Belt Law Enforcement; Short-term, High Visibility Child Restraint Enforcement

OP-19-03 MSP Occupant Protection CIOT Enforcement Campaign

Provide funds for overtime for the Massachusetts State Police (MSP) to participate in two Click It or Ticket (CIOT) mobilizations. One will take place in October/November 2018 and the other in May/June 2019. Enforcement efforts will focus on increasing compliance with occupant protection law during the day and night and will take place at times and locations shown to have high incidences of motor vehicle crashes based on the most current state and local crash and citation data. Other violations such as speeding and texting may also be secondarily targeted during these mobilizations.

Projected Budget: $ 500,000.00

CM Strategy Justification: Short-term, High Visibility Seat Belt Law Enforcement; Short-term, High Visibility Child Restraint Enforcement

OP-19-04 Local Police Sustained Traffic Enforcement Program (STEP)

Local sustained enforcement of occupant protection laws will be conducted in selected communities. These hot spot communities will be selected based upon crash and motor vehicle violation data. Previously awarded communities were Barnstable, Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford,

Quincy, Springfield, Taunton, Westfield, and Worcester. The communities selected for FFY 2019 may be adjusted. Local police departments in the selected areas will receive overtime funding to crack down on occupant protection law violations and other traffic safety areas; a portion of the funding (approximately 15-16% of available funding) will be used for data entry and/or traffic data analysis.

Projected Budget: $ 677,500.00

CM Strategy Justification: Sustained Enforcement; Integrated Enforcement

OP-19-05 MSP Sustained Traffic Enforcement Program (STEP)

In support of occupant protection laws, this task will provide funds to the MSP to deploy sustained and selective "zero tolerance" traffic enforcement overtime patrols on the day/time/location identified in each respective Troop to augment local STEP departments' efforts within the same general location. MSP STEP enforcement patrols will provide maximum visibility for deterrent purposes and saturate target areas taking immediate and appropriate action on all motor vehicle violations, with particular focus on seat belt usage, child passenger safety infractions, and speed. Funds will also be provided to MSP for the purchase of Radar Units and Automatic License Plate Recognition (ALPR) software upgrades. Purchase of radar unit and ALPR software will enhance MSP enforcement efforts.

Based on FFY 2018 expenditures for ALPR, EOPSS/OGR/HSD estimates approximately 1% of MSP STEP funding will be set aside for ALPR software upgrades. The low proportion is also in recognition of a recent bill introduced by the Massachusetts Senate (S2299) that is intended to curtail usage of ALPR by law enforcement. The bill also seeks to prevent the establishment of any permanent database for ALPR data, something the Federal government is looking to link its current ALPR database to.

Projected Budget: $ 470,000.00

CM Strategy Justification: Sustained Enforcement; Integrated Enforcement

OP-19-06 CPS Equipment Grant Program

EOPSS/OGR/HSD will provide grants to municipal departments, regional non-profits including hospitals and higher-education public safety agencies for the purchase of car seats for distribution to those in need at their inspection stations. Despite Massachusetts having the lowest child mortality rate in the country, NHTSA estimates a 46% child seat misuse rate; and past subrecipients have observed up to a 90% misuse rate in their inspection stations, including expired seats, children in the wrong size seats, and seats installed incorrectly.

Grant subrecipients will be selected based on the quality of their current Child Passenger Safety (CPS) program, the identification of low-income populations in their coverage area, and methods for reaching out to those in financial need of a car seat. In addition to distributing seats to low income families, either through outreach or at inspection sites, law enforcement agencies may use seats in emergency situations, such as traffic stops where they find seat misuse or a lack of proper child restraint.

Through this planned activity EOPSS/OGR/HSD will focus on key at-risk groups within Massachusetts: minority (Hispanic/Black), which have consistently have had the lowest seat belt usage rate in the annual statewide seat belt observation survey; as well as nighttime drivers (those driving between 6pm – 3am), which have accounted for nearly 50% of all unrestrained fatalities in the last decade (2007-2016). The CPS program will seek to award funding to

subrecipients in regions or municipalities with high unrestrained fatalities as well as high density of minority residences such as Springfield, Boston, Worcester, and Fall River. Through outreach by CPS Technicians at fitting stations and safety events, more drivers will learn about the importance of wearing seat belts.

Projected Budget: $ 225,000.00

CM Strategy Justification: Child Restraint System Inspection Station(s)

OP-19-07 CPS Administration and Training

EOPSS/OGR/HSD will provide funding to Baystate Medical Center to recruit, train, and maintain a sufficient number of certified Child Passenger Safety (CPS) technicians and instructors in Massachusetts. A minimum of 20 courses will be conducted statewide, including CPS Technician, CPS Technician Renewal, CPS Update, CPS Special Needs, and CPS Ambulance. Additionally, Baystate will coordinate staffing and sign-offs at check-up events and respond to all calls made to the Statewide CPS Information Line.

Baystate will also continue to provide half-day CPS trainings monthly at the Massachusetts Department of Children and Families (DCF) statewide training center. This program began as a collaborative pilot effort in January 2018 between EOPSS/OGR/HSD and DCF, with one optional training being offered monthly for three months to social workers. Social workers are frequently required to transport children in their personal vehicles, yet very few have any car seat knowledge or formal training. Based on the success of the pilot, which took place in April 2018, DCF made it a mandatory training for all social worker technicians. The half day training is comprised of both classroom and hands-on in-vehicle training, with the goal being for attendees to know the basics of installation and who to contact if they need further assistance. EOPSS/OGR/HSD proposes to continue covering the cost of instructors for these much needed monthly trainings at the statewide training center. EOPSS/OGR/HSD also continues to explore opportunities to enhance this collaboration, by either providing CPS Technician training to DCF supervisors, or by providing the half-day training at DCF's regional area offices around the state.

This planned activity will help law enforcement officers, through CPS training and education, focus on key at-risk groups within Massachusetts: minority (Hispanic/Black), minority (Hispanic/Black), which have consistently have had the lowest seat belt usage rate in the annual statewide seat belt observation survey; as well as nighttime drivers (those driving between 6pm – 3am), which have accounted for nearly 50% of all unrestrained fatalities in the last decade (2007-2016). The administrator of the CPS program will focus on offering CPS-related classes in regions with high unrestrained fatalities such as Bristol County, Middlesex County, and Worcester County.

Projected Budget: $ 225,000.00

CM Strategy Justification: Child Restraint System Inspection Station(s)

OP-19-08 CPS Statewide Information Line

Provide funding for landline telephone service so the designated CPS Administrator may respond to all calls made to the Statewide CPS Information Line. The Statewide CPS Administrator will keep a log of all calls which will be submitted to EOPSS/OGR/HSD on a monthly basis.

Projected Budget: $ 1,000.00

CM Strategy Justification: Communication Campaign

OP-19-09 Statewide Seat Belt Observation Survey

Provide funding for a selected vendor to conduct the statewide seat belt observation survey utilizing NHTSA methodology. This survey is required of all states by NHTSA and will take place following the May 2019 Click It or Ticket (CIOT) mobilization. This survey will capture demographic data to assist measuring performance and targeting future occupant protection programs. A final report will be submitted to EOPSS/OGR/HSD for review and dissemination.

Projected Budget: $ 140,000.00

CM Strategy Justification: Communication Campaign

OP-19-10 MSP CPS Seat Checkpoints

Funds will be provided to the MSP for conducting approximately 6-8 child car seat safety checkpoints throughout Massachusetts. These checkpoints will provide the public with information on the Child Passenger Safety (CPS) laws, regulations, and standards for car seats as well as assisting the public with proper car seat installations, if necessary. Checkpoint locations and dates are yet to be determined. Low-income and car seat violation analysis will be used to assist MSP in selecting the location and duration for the checkpoints. Funding for this task is for MSP overtime pay only. No car seats will be purchased with this funding.

This planned activity will help focus on key at-risk groups within Massachusetts: minority (Hispanic/Black), minority (Hispanic/Black), which have consistently have had the lowest seat belt usage rate in the annual statewide seat belt observation survey; as well as nighttime drivers (those driving between 6pm – 3am), which have accounted for nearly 50% of all unrestrained fatalities in the last decade (2007-2016). Checkpoints will be conducted in regions of high unrestrained fatalities such as Worcester County, Middlesex County, and Bristol County.

Projected Budget: $ 27,000.00

CM Strategy Justification: Child Restraint System Inspection Station(s)

OP-19-11 Occupant Safety and Impaired Driving Awareness Display Vehicle

This planned activity will utilize a mock crashed vehicle with crash test dummies to visually display the consequences of impaired driving and not using seat belts during the May 2019 CIOT campaign and other times during FFY 2019 in coordination with local partners. As part of the CIOT campaign, the vehicle will be moved to several locations such as high schools and public safety events. Funds may be used for supplies, vehicle transport, storage, and media expenses.

Projected Budget: $ 2,000

CM Strategy Justification: Supporting Enforcement; Short-term, High Visibility Seat Belt Law Enforcement

OP-19-12 "Buckle Up" Road Signage

This program was originally planned for FFY 2018. Due to the uncertainty and delays in receiving grant funding, along with the need to fund higher priority projects, the program was not implemented.

In FFY 2019, this program will install permanent "Buckle Up" road signs. Although there have been small improvements, Massachusetts still ranks well below the national average for seat belt use. With over 500 unbelted fatalities form 2012-2016, it is clear that the state has much more work to do and needs to try new approaches. The FAST Act has allowed for projects that promote public awareness of highway safety matters or enforces highway safety laws. Between 150 and 500 signs, which will adhere to US DOT code, will be installed across the Commonwealth. The most recent seat belt usage data and other key research data will be used to determine locations. Based on data for seat belt use, the signs will likely be placed on non-interstate roadways with a focus on more urban population centers. Information regarding vehicle counts and data on driving populations/demographics, when available, will help further customize sign locations.

Projected Budget: $ 250,000.00

CM Strategy Justification: Communication Campaign

OP-19-13 Higher Education Grant Program – Occupant Protection Media Program

Provide grant funds to a college or university to develop a seat belt media campaign that resonates with younger drivers. The grant will be given to an academic department such as journalism, marketing, or one related to video/advertising production. It will be required that a department faculty member oversees the project including paying for student stipends, supplies, production costs, and travel.

The intent is to generate messaging that is conceptualized, developed, produced, and disseminated by young people to their peers. The end product(s) may be disseminated via social or earned media. The student workers will be given day-to-day guidance from the faculty member and also be able to work with the EOPSS/OGR/HSD staff and media vendor for additional direction. It is hoped that the end product(s) will be accepted by the target audience as peer-to-peer messaging as opposed to government messaging.

Projected Budget: $ 10,000.00

CM Strategy Justification: Communication Campaign

OP-19-14 Community-Based Occupant Protection Program

Competitive and discretionary grant awards will be provided to one or more organizations such as Girl Scouts, Boy Scouts, PTOs, schools, faith-based and advocacy groups, etc., that will implement community-based programs. The eligible applicants may include both non-profit 501(c)(3) or governmental agencies.

This planned activity will consist of one or more data-driven competitive gran programs that will be focused in geographical areas and/or high risk populations that have demonstrated need in the area of occupant protection.

The programs will generally be focused on raising awareness of road safety, training, and changing social attitudes and behaviors in order to reduce vehicle crashes and their associated fatalities, serious injuries and economic losses on the state's roadways.

This will not be a traffic enforcement program, but EOPSS/OGR/HSD will encourage applicants to develop new or enhance existing partnerships with law enforcement agencies to achieve project goals.

Selected grant subrecipients will develop and implement traffic safety improvement educational and awareness programs that address issues in their targeted communities. Programs that focus on high risk groups or behaviors will be prioritized. Organizations will be encouraged to build partnerships that incorporate a whole-community, data-driven approach to identifying and addressing road safety problems. The formation of community-wide road safety coalitions that bring together a wide constituency to focus on aspects of road safety will also be encouraged.

Projects that will develop and implement educational curriculum that aim to install a life-long road safety culture in the Commonwealth's citizenry will also be prioritized. Projects may also incorporate social, and/or traditional media strategies to change risky behavior on the state's roadways.

Projected Budget: $ 25,000.00

CM Strategy Justification: Communication Campaign

OP-19-15 Program Management – Occupant Protection

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage and office supplies.

Projected Budget: $ 200,000.00

CM Strategy Justification: Highway Safety Office Program Management

Program Area (SC): Speed Management

Speeding, or aggressive driving, is an ever-present danger on the roadways. In 2016, 27% of traffic fatalities in the U.S. involved speeding and 18% of all drivers in fatal crashes were speeding at the time of crash, with 11% these drivers between the ages of 15 and 20. In Massachusetts, speeding was also determined to be involved in 27% of all traffic fatalities. However, 27% of all drivers (136 of 501) in fatal crashes were speeding at the time of crash - much higher than the national rate of 18%. Of these 136 speeding drivers (96 males, 40 females), 14% were under the age of 21. Speeding fatalities overall have been on the decline in recent years. Since 2012, the number of speeding fatalities nationally has declined 2%, while the number in Massachusetts has decreased 8%. While this is a positive development, much work is still needed to improve driver behaviors on the roadways.

From 2012 to 2016, there were 485 speed-related fatalities in Massachusetts. Worcester led all counties with 16%, followed by Hampden (13%) and Bristol (11%). These three counties account for 40% of all speeding fatalities in the Commonwealth. Franklin County had the highest percentage with 41% fatalities being speed related (14 of 34) with Hampden County second at 36% (62 of 174).

County	Speeding Fatalities (2012-2016)	Percent of All Speeding Fatalities	Total Traffic Fatalities (2012-2016)	Percent Speed of All County Fatalities
Barnstable	21	4%	92	23%
Berkshire	16	3%	55	29%
Bristol	55	11%	220	25%
Essex	41	8%	162	25%
Franklin	14	3%	34	41%
Hampden	62	13%	174	36%
Hampshire	13	3%	43	30%
Middlesex	50	10%	245	20%
Norfolk	50	10%	183	27%
Plymouth	49	10%	203	24%
Suffolk	34	7%	141	24%
Worcester	77	16%	263	29%

Saturdays and Sundays saw the most speed-related fatalities, with 20% each, from 2012 to 2016. The three day span of Friday, Saturday and Sunday accounts for 56% of all speed crashes.

Day-of-week	Speeding Fatalities (2012-2016)	Percent of All Speeding Fatalities
Sunday	95	20%
Monday	54	11%
Tuesday	54	11%
Wednesday	57	12%
Thursday	50	10%
Friday	78	16%
Saturday	97	20%

From 2012 to 2016, speed related fatalities occurred most in July and November. Those two months accounted for nearly a quarter of all fatalities. Interestingly, the latter part of the year (July - December) had a significantly higher percentage of fatalities than the first six months (January - June). A margin of 58% to 42% in favor of the second half of the year.

Month	Speeding Fatalities (2012-2016)	Percent of All Speeding Fatalities
January	38	8%
February	27	6%
March	23	5%
April	37	8%
May	36	7%
June	43	9%
July	57	12%
August	34	7%
September	49	10%
October	51	11%
November	57	12%
December	33	7%

According to NHTSA, in 2016 half of all drivers in the U.S. in fatal crashes involving speeding were unrestrained. In Massachusetts, the rate was much lower in 2016 with 30 of 105 speed-related fatalities involving a driver that was unrestrained - a 29% rate. Drivers and passengers together accounted for 39% of all speed-related fatalities in 2016. Below is a chart showing the number of unrestrained drivers and passengers from 2012 to 2016.

Unrestrained Fatalities in Speeding Crashes (2012-2016)	Drivers	Passengers	% All Unrestrained Drivers	% All Unrestrained Passengers	% All Unrestrained Speeding Fatalities
Under 16 years	0	4	0%	6%	2%
16 - 20	22	15	16%	23%	18%
21 - 25	30	22	22%	34%	26%
26 - 35	35	14	26%	22%	24%
36 - 45	22	3	16%	5%	12%
46 - 55	16	3	12%	5%	9%
56 - 65	5	4	4%	6%	4%
Over 65	7	0	5%	0%	3%

Most unrestrained fatalities in a speed-related crashes occurred among drivers and passengers between the age of 16 and 35. This group accounts for 68% of all speed-related unrestrained fatalities. After age 35, the percentage drops substantially as older, more mature drivers are less prone to speeding.

It may seem logical to assume more speed-related crashes occur on interstates because of the higher speeds, but in Massachusetts only 21% take place on interstates or state highways. From 2012-2016, over a third of speed-related fatal crashes (142 of 444) occurred on local roads or streets, 41% on arterials (principal and minor), and 6% on collectors (major and minor).

The time of day when speed-related fatal crashes occur helps narrow down when speed-related enforcement or planned activities should be conducted. The chart below details when speeding crashes occur on specific road types. 25% of all speed-related fatal crashes on local roads took place between 12:00am - 2:59am. Midnight to 2:59 am is the time when crashes occur most often in four of the seven functional systems. Principal arterial speed-related crashes are highest during the evening rush hour, 6:00pm to 8:59pm, which makes sense as this time frame is when most people are driving home from work or driving to evening activities (town sports, bands, dance) which would involve lots of driving over principal and minor arterial roads.

Speed-Related Fatal Crashes (2012-2016)	Interstate	Freeway or Highway	Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local Road
12:00am - 2:59am	19%	27%	20%	27%	23%	20%	25%
3:00am - 5:59am	19%	13%	10%	9%	14%	0%	8%
6:00am - 8:59am	9%	10%	7%	7%	5%	0%	6%
9:00am - 11:59am	3%	3%	2%	5%	9%	20%	4%
12:00pm - 2:59pm	14%	10%	3%	7%	5%	20%	6%
3:00pm - 5:59pm	13%	7%	10%	13%	5%	40%	14%
6:00pm - 8:59pm	6%	20%	26%	14%	27%	0%	14%
9:00pm - 11:59pm	17%	10%	21%	18%	14%	0%	22%

For FFY 2019, EOPSS/OGR/HSD will focus its speeding and aggressive driving efforts on occupants aged 35 years or younger with emphasis on wearing seat belts. Any enforcement activity should take place primarily along arterials and local roads during the period from 3:00pm to 3:00am.

Performance Measure for Program Area

C-6 Number of speeding-related fatalities

Countermeasure Strategies to be Implemented

Sustained Enforcement

Speed-related enforcement patrols will be conducted on a regular basis during FFY 2019 by MSP across the state with an emphasis on counties having high speed-related fatalities since 2009 such as Bristol and Worcester. Local police involved in STEP (Barnstable, Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Springfield, Taunton, Westfield, and Worcester) will also make speed enforcement among their patrol priorities along with impaired driving and occupant protection during overtime activity.

Highway Safety Office Program Management

The day-to-day operation of EOPSS/OGR/HSD requires funding to allow staff to properly oversee the speed management program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Communication Campaign

Speed safety media campaigns will support the traffic enforcement mobilizations conducted by both State and local police during FFY 2019. Stopping drivers exceeding the posted speed limit or driving too fast for current conditions is a part of the overall objectives for high-visibility as well as sustained enforcement activities.

Speeding-related fatalities have declined 8% since 2007. Despite this positive development, it has been found that nearly 45% of these speed-related fatalities were attributed to an unrestrained driver or passenger in the crash. The speed media campaign in FFY 2019 will not only focus on driving with care and consideration for others sharing the road but also the need to buckle up anytime one steps into a motor vehicle. By tackling both issues via marketing, along with the numerous traffic enforcement mobilizations, sobriety checkpoints, and regular patrols by State and local police, EOPSS/OGR/HSD expects the number of speed-related fatalities to decline in the coming years.

Planned Programming

SC-19-01 Speed Media

Provide funding for paid and earned media campaign in support of speed-related outreach and enforcement activities throughout FFY 2019, including the Massachusetts State Police Enforcement mobilization. EOPSS/OGR/HSD will

contract with a marketing and advertising agency to execute this campaign while running social media in-house for sustained educational efforts.

Internal policies will be followed noting that all media communications activities should be in support of data-driven objectives and in coordination with other activities and programs, in particular, enforcement. Crash and citation data will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Projected Budget: $ 50,000.00

CM Strategy Justification: Communication Campaign

SC-19-02 MSP Speed Enforcement

Funds will be provided to the MSP to conduct speed-related enforcement activities aimed at decreasing the incidence of speeding violations and reducing the rate of speed-related motor vehicle crashes along the Commonwealth's major highways. MSP will use internal data to determine the timing of the mobilization. In previous years, speed mobilizations have taken place in October.

Projected Budget: $ 300,000.00

CM Strategy Justification: Sustained Enforcement

SC-19-03 Program Management – Speed & Aggressive Driving

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage and office supplies.

Projected Budget: $ 40,000.00

CM Strategy Justification: Highway Safety Office Program Management

Program Area (MC): Motorcyclists

Motorcycling continues to be a popular, yet dangerous, pastime in the U.S. as vehicle miles traveled (VMT) by motorcycles have doubled since 2004. In 2016, motorcycle fatalities occurred nearly 28 times more often, based on VMT, than passenger car fatalities (Traffic Safety Facts, February 2016, DOT HS 812 492). That same year, there were almost 168,000 motorcycles registered in Massachusetts with 42 motorcycle rider fatalities reported. That gave Massachusetts a motorcycle fatality rate of 25.03 per 100,000 registered motorcycles. The national rate, by comparison, was significantly higher at 60.90. Since 2007, motorcycle fatalities have fallen 32%.

NHTSA estimates that nationally, helmets saved the lives of 1,859 motorcyclists in 2016. If all motorcyclists had worn helmets, an additional 802 lives could have been saved. Helmets are estimated to be 37 percent effective in preventing fatal injuries to motorcycle riders, and 41 percent for passengers. In other words, for every 100 motorcycle riders killed in crashes while not wearing helmets, 37 of them could have been saved had they worn one. According to results from the 2016 National Occupant Protection Use Survey (NOPUS), the overall rate of DOT-compliant motorcycle helmet use in the United States was 65.3 percent. Helmet use was significantly higher in States that required all motorcyclists to be helmeted than states that did not (Traffic Safety Facts, March 2017, DOT HS 812 378). Massachusetts does require that motorcyclists be helmeted. Of the 42 reported motorcycle fatalities in 2016 in the Commonwealth, only two were determined to be not wearing a helmet at the time of crash.

In 2016, motorcycle fatalities accounted for 11% of all motor vehicle-related fatalities in Massachusetts, down from 16% in 2015. Males represented 86% (36 of 42) the motorcycle fatalities. Females accounted for 14% (6) of fatalities - the highest level in ten years. Since 2007, there have been over 500 motorcycle fatalities across the Commonwealth with 15% (74) occurring in Worcester County. The 21 reported motorcycle fatalities in Hampshire County accounted for nearly a quarter of all fatalities that happened in the county.

From 2007 to 2016, there were 463 fatal motorcycle crashes of which 230 involved another motor vehicle. The top three counties for this type of crash were Worcester, Bristol, and Hampden. Those three counties accounted for 39% of all motorcycle crashes with another motor vehicle. It is interesting that the three highest counties with the highest percentages for crashes without hitting another motor vehicle - Berkshire, Franklin, and Hampshire - are rural with many scenic roadways and low levels of interstate travel.

Motorcycle Fatalities	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	% All MC Fatalities (n =501)	County Fatalities 2007-2016	% MC of All County Fatals
Barnstable	4	3	3	5	1	2	2	0	4	1	25	5%	193	13%
Berkshire	3	2	3	4	2	2	0	2	0	0	18	4%	123	15%
Bristol	4	5	3	9	5	7	5	8	4	7	57	11%	458	12%
Essex	2	3	6	7	4	4	5	2	3	3	39	8%	342	11%
Franklin	0	3	1	1	1	1	0	0	3	1	11	2%	62	18%
Hampden	7	4	8	4	2	8	6	5	2	7	53	11%	337	16%
Hampshire	1	2	1	4	3	1	2	3	3	1	21	4%	86	24%
Middlesex	5	5	9	9	3	4	3	3	8	8	57	11%	528	11%
Norfolk	7	1	3	3	1	9	3	3	5	4	39	8%	344	11%
Plymouth	11	5	5	2	7	1	6	9	7	4	57	11%	382	15%
Suffolk	9	5	4	3	3	9	5	1	10	1	50	10%	280	18%
Worcester	8	4	9	10	7	7	5	9	10	5	74	15%	534	14%
	61	**42**	**55**	**61**	**39**	**55**	**42**	**45**	**59**	**42**	**501**		**3,669**	**14%**

Motorcycle Crashes Involving Another MV	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	% All MC
Barnstable	3	0	3	3	1	1	1	0	1	1	14	6.1%
Berkshire	0	1	1	2	0	0	0	1	0	0	5	2.2%
Bristol	3	3	1	5	3	3	3	3	1	5	30	13.0%
Essex	1	1	3	3	1	2	2	1	2	2	18	7.8%
Franklin	0	1	1	1	1	0	0	0	1	1	6	2.6%
Hampden	3	2	4	1	0	7	3	4	1	2	27	11.7%
Hampshire	0	0	1	0	2	1	1	1	0	1	7	3.0%
Middlesex	2	1	6	3	2	3	0	0	2	3	22	9.6%
Norfolk	4	1	2	2	0	4	1	2	3	4	23	10.0%
Plymouth	7	1	3	1	3	0	2	4	3	1	25	10.9%
Suffolk	0	3	3	1	1	4	2	0	5	1	20	8.7%
Worcester	3	2	5	4	3	3	4	2	5	2	33	14.3%
	26	**16**	**33**	**26**	**17**	**28**	**19**	**18**	**24**	**23**	**230**	

Not surprisingly, most motorcycle fatalities occur during the weekend (Saturday/Sunday). These two days accounted for 39% of all fatalities over the last ten years.

Day of Week	Total Fatalities (2007-2016)	% of All MC Fatalities
Sunday	97	19%
Monday	57	11%
Tuesday	65	13%
Wednesday	53	11%
Thursday	60	12%
Friday	64	13%
Saturday	102	20%

The summer months (June, July, August) account for 49% of all motorcycle fatalities. Add in spring (March, April, May) and the total for the two seasons is 74% of all motorcycle fatalities. EOPSS/OGR/HSD has to ensure any enforcement related to motorcycle safety is conducted during the weekends throughout spring and summer.

Month of Year	Total Fatalities	% of All MC Fatalities
January	4	0.8%
February	2	0.4%
March	18	4%
April	47	9%
May	59	12%
June	69	14%
July	86	17%
August	90	18%
September	56	11%
October	38	8%
November	25	5%
December	4	0.8%

In 2016, NHTSA reported that 33% of all motorcycle riders in a fatal crashes were speeding. For Massachusetts, the rate was lower at 23% with 14 of the 41 crashes involving speeding, either over the posted limit or too fast for conditions. Over the past seven years (2010-2016), speed involvement in motorcycle crashes has fluctuated, from a low of 22% to a high of 42%.

	MC Crashes	MC Crash w/Speeding	%
2010	60	17	28%
2011	40	20	33%
2012	52	19	32%
2013	42	17	28%
2014	44	13	22%
2015	55	25	42%
2016	41	14	23%
	334	**125**	**37%**

Motorcycle fatalities in the past decade have occurred more frequently among riders between the ages of 21 and 35. This age group accounted for 44% of fatalities. In the past five years (2012-2016), this age group was the only segment to see an increase in fatalities compared to the prior five-year period (2007-2011).

MC Fatalities by Age Group	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	% of All MC Fatalities
Under 16	0	0	0	0	0	1	0	0	1	0	2	0.4%
16 - 20	5	3	3	6	4	3	2	1	4	2	33	6.6%
21 - 25	13	5	10	14	6	9	12	14	15	10	108	21.6%
26 - 35	16	7	11	11	8	12	5	13	17	12	112	22.4%
36 - 45	12	6	11	12	7	10	6	7	9	3	83	16.6%
46 - 55	7	16	10	9	8	11	8	7	4	7	87	17.4%
56 - 65	7	4	9	7	3	8	9	2	4	5	58	11.6%
Over 65	2	1	1	2	3	1	0	2	2	3	17	3.4%

Based on the data provided above, EOPSS/OGR/HSD will let law enforcement agencies involved in motorcycle safety enforcement focus activity on the weekend and during the warmer months (May - September). A key demographic will be motorcycle riders from age 21 to 35 in Bristol, Hampden and Worcester counties.

Performance Measure for Program Area

C-7 Number of motorcyclist fatalities

C-8 Number of unhelmeted motorcyclist fatalities

Countermeasure Strategies to be Implemented

Motorcycle Rider Training

Data has shown that motorcycle rider training does help improve motorcycle safety and reduces the likelihood of fatal crashes among those who complete the training. In FFY 2019, EOPSS/OGR/HSD will work with the Registry of Motor Vehicles (RMV) to help improve its Motorcycle Rider Education Program (MREP) through enhancements in the delivery of motorcycle training in urban and rural areas as well as increase the number of certified motorcycle training instructors.

Nearly 45% of all motorcyclist fatalities in the last ten years has been among motorcycle riders ages 21 to 35 and EOPSS/OGR/HSD will work with RMV to target this age demographic in order to increase their participation in MREP training sessions.

Highway Safety Office Program Management

The day-to-day operation of EOPSS/OGR/HSD requires funding to allow staff to properly oversee the speed management program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Communication Campaign

In 2016, motorcycle fatalities accounted for 11% of all motor vehicle-related fatalities in Massachusetts, down from 16% in 2015. To continue this positive trend in declining motorcyclist fatalities, EOPSS/OGR/HSD will partner with RMV's

Motorcycle Rider Education Program (MREP) to develop and promote an awareness campaign about motorcycle safety. The media for the campaign – online, radio, television, and/or outdoor billboards and electronic signs, will take place during the warmer months (late spring – early fall) to take advantage of the peak riding season in Massachusetts. It is this period of the year when over 70% of motorcyclist fatalities occur.

Not only will the media campaign be in full force during warmer months when motorcyclists are more likely to be on the roads, any associated media buy(s) will skew towards Bristol, Hampden, Norfolk, Plymouth, and Worcester counties. These counties represent 60% of the motorcycle crashes involving another motor vehicle from 2007 to 2016.

Planned Programming

MC-19-01 Motorcycle Safety Media

Funds will be provided for the implementation of a media program to educate motorcyclists about the importance of rider safety and the dangers of impaired riding. A combination of earned and paid media will focus on the dangers of speeding and the enforcement of impaired riding laws through public service announcements (PSA), social media, and press outreach. Local and national data will be used to identify the timing and target audience of the campaign. EOPSS/OGR/HSD will contract with a media vendor to assist with development and targeted distribution of motorcycle safety information to key demographics and regions in Massachusetts.

Internal policies will be followed noting that all media communications activities should be in support of data-driven objectives and in coordination with other activities and programs, in particular, enforcement. Crash and citation data will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Projected Budget: $ 75,000.00

CM Strategy Justification: Communication Campaign

MC-19-02 Motorcycle Safety Program Enhancements

Funds will be provided to the RMV to help fund the Motorcycle Rider Education Program (MREP), which will improve the delivery of motorcycle trainings to both urban and rural areas and increase the recruitment of motorcycle training instructors. The MREP will conduct at least one new RiderCoach training class, fund one Deaf Basic Rider Course, and will coordinate the delivery and staffing of its mobile training unit, the SMART Rider, at motorcycle events around the state. The MREP will also conduct site visits at motorcycle safety training schools in the state to ensure classes and content align with the recently adopted state curriculum: the Motorcycle Safety Foundation's updated Basic Rider Course.

Additionally, EOPSS/OGR/HSD will develop media in coordination with MREP to enhance driver awareness of motorcyclists and educate them on the need to share the road. The awareness campaign will run in late spring, early summer – a time of year when motorcyclist fatalities tend to spike. Any associate media buy(s) will skew towards Bristol, Hampden, Norfolk, Plymouth, and Worcester counties, which represent 60% of the fatal motorcycle crashes involving another motor vehicle from 2007-2016. Strong internal policies will be followed noting that all media and communications activities should be in support of data-driven objectives and in coordination with other activities and programs, in particular, enforcement. Crash and citation data will be used not only for planning enforcement activities but

also to determine the target audiences and media channels used to reach that audience. NTHSA's guidelines will be followed for messaging, demographics, best practices, and target groups for each media effort.

Massachusetts has 12 motorcycle schools that provide training opportunities at 26 sites, encompassing 11 of 14 counties across the state.

Barnstable – West Dennis
Berkshire – Pittsfield
Bristol – Easton, Dartmouth, Raynham, Seekonk
Essex – Beverly, North Andover
Franklin – Ashfield, Greenfield
Hampden – Palmer, Westfield (2)
Middlesex – Ayer, Bedford, Framingham, Tyngsborough
Norfolk – Foxborough, Norwood
Plymouth – Brockton, Plympton, Wareham
Suffolk – Revere
Worcester – Auburn, Sturbridge, West Boylston

Based on 2017 data from RMV, Massachusetts has 165,148 registered motorcycle riders.

Projected Budget: $ 75,000.00

CM Strategy Justification: Motorcycle Rider Training

MC-19-03 Program Management – Motorcycle Safety

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage and office supplies.

Projected Budget: $ 30,000.00

CM Strategy Justification: Highway Safety Office Program Management

Program Area (PS): Pedestrian and Bicyclist Safety

From 2007 to 2016, pedestrian fatalities in the U.S. dropped 9%. Unfortunately, Massachusetts has not experienced this decline. Pedestrian fatalities have jumped 21% in the same period. Nationally in 2016, pedestrian fatalities accounted for 16% of all traffic deaths; in Massachusetts that number was 21%. Massachusetts had the same balance for male and female pedestrian fatalities as nationwide, 70% and 30%, respectively.

Middlesex led all counties in Massachusetts with 140 pedestrian fatalities from 2007 to 2016, accounting for 19% of all pedestrian deaths. Suffolk (105) and Worcester (84) round out the top three with 15% and 12% of all pedestrian fatalities, respectively. Together these three counties represent 46% of all pedestrian fatalities over the past ten years. Suffolk was far ahead of all other counties with 38% of its fatalities being pedestrians.

Pedestrian Fatalities	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	% All Peds	Fatalities 2007-2016	% Ped Fatalities
Barnstable	2	2	1	5	4	2	5	2	2	4	29	4%	193	15%
Berkshire	3	0	1	3	2	1	2	1	2	3	18	3%	123	15%
Bristol	5	9	4	9	7	12	2	8	7	2	65	9%	458	14%
Essex	6	8	8	6	9	11	11	5	7	5	76	11%	342	22%
Franklin	1	0	0	0	0	0	0	0	0	0	1	0%	62	2%
Hampden	6	5	4	4	8	6	8	6	9	4	60	8%	337	18%
Hampshire	1	2	0	2	0	2	0	1	1	4	13	2%	86	15%
Middlesex	16	20	10	10	12	16	15	11	11	19	140	19%	528	27%
Norfolk	5	4	6	10	6	12	6	6	9	8	72	10%	344	21%
Plymouth	5	5	3	2	5	4	8	11	7	5	55	8%	382	14%
Suffolk	10	13	4	13	9	7	10	12	9	18	105	15%	280	38%
Worcester	6	8	5	4	7	9	12	11	14	8	84	12%	534	16%
	66	**76**	**46**	**68**	**69**	**82**	**79**	**74**	**78**	**80**	**718**		**3,669**	**20%**

Boston, which is in Suffolk County, led all municipalities with 90 pedestrian fatalities from 2007 to 2016. As the chart of top cities shows (below), nearly 40% of people killed on the roads in Boston were pedestrians. Quincy which borders Boston to the south, in Norfolk County, surpassed Boston and lead the state with 45% of its traffic fatalities represented by pedestrians. Quincy has several MBTA subway and commuter rail stops to which many residents walk to each day, as well as several major arterial roads (Washington Street/3A, Newport Avenue) that serve as key access roads for I-93.

Top Cities for Pedestrian Fatalities (2007-2016)	Total Pedestrian Fatalities	Total Fatalities	% Ped of Total Fatalities
BOSTON	90	233	39%
WORCESTER	31	84	37%
SPRINGFIELD	28	81	35%
NEW BEDFORD	20	72	28%
QUINCY	18	40	45%
BROCKTON	16	57	28%

LYNN	13	35	37%
REVERE	10	26	38%
WEST SPRINGFIELD	10	37	27%

Pedestrian fatalities tend to occur more often during the latter part of the week (Weds - Sat). Thursdays had the highest total followed by Friday and Wednesday. These three days accounted for 47% of all pedestrian fatalities from 2007 to 2016.

Day-of-Week	Pedestrian Fatalities (2007-2016)	% of All Ped Fatalities
Sunday	84	12%
Monday	91	13%
Tuesday	99	14%
Wednesday	111	15%
Thursday	115	16%
Friday	113	16%
Saturday	107	15%

By month, pedestrian fatalities were more prevalent during the four-month stretch from October to January. Those four months accounted for nearly half of all pedestrian fatalities from 2007 to 2016. Factors such as reduced daylight hours, poor visibility (sleet, snow, high snowbanks), and lack of clear walkways for pedestrian due to snow accumulation are possible reasons for the increase in pedestrian deaths during that time. There's also the increased pedestrian activity in shopping areas, whether in the cities or suburbs, as a result of the Thanksgiving to New Year's holiday period.

Month	Pedestrian Fatalities (2007-2016)	% of All Ped Fatalities
January	68	9%
February	45	6%
March	48	7%
April	43	6%
May	42	6%
June	43	6%
July	54	8%
August	57	8%
September	46	6%
October	72	10%
November	90	13%
December	112	16%

From 2007 to 2016, the 65 and older age group had the highest percentage of all pedestrian fatalities, making up over a third of all pedestrian deaths in Massachusetts. In fact, the older demographics, those over 45 years, accounted for 65% of pedestrian fatalities in the past ten years. Pedestrian deaths were responsible for 38% of traffic fatalities among those under 16 years of age, the highest percentage for all the age groups. The 65 or older age group was second with 30% of its fatalities attributed to pedestrians. Combined, the youngest and oldest age subset account for nearly 70% of all traffic-related fatalities.

Age Group	Pedestrian Fatalities (2007-2016)	% of All Ped Fatalities
Under 16 years	30	4%
16 - 20	40	6%
21 - 25	41	6%
26-35	72	10%
36-45	74	10%
46-55	119	17%
56-65	108	15%
Over 65	236	33%

Pedestrian fatalities occurred with more frequency during the afternoon and evening hours, especially the period from 3pm to midnight. This nine-hour period was responsible for nearly 60% of all pedestrian fatalities reported from 2007 to 2016. The morning rush hours (6am - 8:59am) had the only double-digit percentage during AM hours.

Time of Day	Ped Fatalities (2007-2016)	% of All Ped Fatalities
12:00am - 2:59am	45	6%
3:00am - 5:59am	49	7%
6:00am - 8:59am	86	12%
9:00am - 11:59am	58	8%
12:00pm - 2:59pm	58	8%
3:00pm - 5:59pm	126	18%
6:00pm - 8:59pm	175	25%
9:00pm - 11:59pm	112	16%

For FFY 2019, EOPSS/OGR/HSD plans to continue its programming aimed at pedestrian safety as the five-year average has steadily increased since 2010. The high pedestrian fatality counties of Suffolk and Middlesex will be given more focus to implement activities to decrease fatalities. Any enforcement activity should take place more often during the late afternoon and evening hours, from Thursday to Saturday and during late fall/early winter months. Due to the high percentage of older pedestrian fatalities, coordination with local municipalities to highlight areas of high older populations or places of high density of older populations could help lower fatalities among that age group.

In 2016, there were 10 bicyclist fatalities reported in Massachusetts, down from 12 in 2015. Bicyclist fatalities accounted for 3% of all traffic fatalities in 2016, and have never been more than 4% over the past ten years. Yet, this is higher than the national rate, which has averaged approximately 2% in the last ten years. Suffolk County led Massachusetts with 20% of the states bicycle fatalities. It also had the highest proportion of its traffic fatalities related to bicyclists (6%). Given the popularity of bicycles for commuting and recreational purposes in Boston, it is no wonder that Suffolk County had a higher proportion of deaths attributed to bicyclists compared to the rest of the state.

Bicyclist Fatalities	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	% All Bike Fatalities	Fatalities 2007-2016	% Bike Fatalities
Barnstable	1	1	0	0	0	1	1	1	2	0	7	8%	193	4%
Berkshire	0	1	0	0	1	0	0	0	0	0	2	2%	123	2%
Bristol	2	0	0	0	0	2	0	0	2	1	7	8%	458	2%
Essex	0	4	0	0	0	1	0	0	0	1	6	7%	342	2%
Franklin	0	0	0	0	0	0	0	0	2	0	2	2%	62	3%
Hampden	2	1	0	1	0	1	2	1	0	1	9	10%	337	3%
Hampshire	0	0	2	0	0	1	1	0	0	0	4	4%	86	5%
Middlesex	1	1	1	2	1	1	0	2	3	5	17	19%	528	3%
Norfolk	2	0	0	0	1	1	0	1	0	0	5	6%	344	1%
Plymouth	0	1	2	0	1	2	1	1	0	2	10	11%	382	3%
Suffolk	3	0	0	3	1	5	1	2	3	0	18	20%	280	6%
Worcester	0	1	1	0	0	1	0	0	0	0	3	3%	534	1%
	11	**10**	**6**	**6**	**5**	**16**	**6**	**8**	**12**	**10**	**90**		**3,669**	**2%**

From 2007-2016, bicyclists fatalities occurred with more frequency on Wednesdays (19%) and Mondays (17%).

Day of Week	Bicyclist Fatalities (2007-0216)	% of All Bicyclist Fatalities
Sunday	10	11%
Monday	15	17%
Tuesday	12	13%
Wednesday	17	19%
Thursday	12	13%
Friday	12	13%
Saturday	13	14%

Bicyclist fatalities occurred more often during warmer months (May - October). The three highest months for fatalities, October, May and September, respectively may be attributed, at least in part, to the increase in bike usage during the college school year. May is usually the final month of the college term in the Boston area as well as the first month of consistently warm weather. September and October are at the beginning of the school year and has weather conducive to riding bikes. October's position as the month with the most bicyclist fatalities may be due to the decrease in daylight hours, especially

affecting the evening rush hour period. As the chart below related to time of day shows, the period from 3pm to 8:59pm reported the most bicyclist fatalities over the last decade.

Time of Day	Bike Fatalities (2007-2016)	% of All Bike Fatalities
12:00am - 2:59am	8	9%
3:00am - 5:59am	1	1%
6:00am - 8:59am	6	7%
9:00am - 11:59am	10	11%
12:00pm - 2:59pm	17	19%
3:00pm - 5:59pm	22	24%
6:00pm - 8:59pm	18	20%
9:00pm - 11:59pm	9	10%

Bicyclist fatalities that took place in the PM (12pm - 11:59pm) accounted for 73% of all bicyclists deaths from 2007-2016. During this time, fatalities were most commonly male, and over 30 years of age. Since 2007, there have been 66 bicyclist fatalities between noon and midnight. Of those 66 deaths, 51 were male, 16 female and 63% were over 30 years of age. The number of over 30 year old bicyclist fatalities have increased in the last five years. From 2007-2011, there were 14 deaths over age 30 during the 12pm - 11:59pm period. Then from 2012-2016 the deaths doubled to 28. 60% of bicyclist deaths in the past decade have been over 35 years of age.

Age Group	Total Bicyclist Fatalities	% of All Bicyclist Fatalities
Under 16 years	10	11%
16 - 20	5	6%
21 - 25	14	16%
26-35	7	8%
36-45	9	10%
46-55	17	19%
56-65	19	21%
Over 65	9	10%

For FFY 2019, EOPSS/OGR/HSD will look to target bicycle safety programming and outreach, particularly in Suffolk and Middlesex Counties, with a focus on bicyclists over 30 years in age. Law enforcement patrols that take place primarily between 3pm and 9pm on Mondays and Wednesdays will be encouraged.

Performance Measure for Program Area

C-10 Number of pedestrian fatalities

C-11 Number of bicyclists fatalities

Countermeasure Strategies to be Implemented

Pedestrian Safety Zones

Pedestrian safety zones concept is aimed at more effectively targeting resources to problem areas by focusing enforcement, education, and interventions on key geographic areas of a community. For example, data analysis of crash locations involving pedestrians in a town might find a cluster within range of a public school. To counter the problem, the local police department would target the area by making presentations at the school, conducting enforcement patrols on the main streets near or by the school, and displaying public safety messaging (billboards, banners, electronic signs) in the same area. Studies have shown this approach leads to decreased fatalities, especially among pedestrians and bicyclists.

The planned activity, Local Pedestrian and Bicyclist Enforcement, will utilize this approach with subrecipients in order to target regions or areas of high incidences involving motor vehicles, pedestrians, and/or bicyclists.

Conspicuity Enhancement

The purpose of enhancing conspicuity (to be easily seen or noticed) for pedestrians is to increase the opportunity for drivers to see and avoid pedestrians, particularly when it is dark. According to NTHSA, 72% of pedestrian fatalities in 2015 occurred during nighttime. In Massachusetts, from 2007-2016 nearly half of pedestrian fatalities took place between 6pm and 3am (hours that typically have little or no daylight). The Pedestrian/Bicyclist Enforcement and Equipment Grant will allow subrecipients to spend a certain percentage (up to 25%) of its allotted grant money to purchase equipment that will help increase the conspicuity of pedestrians. These purchases can include reflector tape, warning signs to place on crosswalks, and banners to be hung advising of high pedestrian traffic or to be aware of pedestrians. Along with the enforcement patrols, these purchase will help raise more awareness to drivers about paying attention to pedestrians when driving in high pedestrian traffic areas.

Pedestrian fatalities remained unchanged from 2015 to 2016 and EOPSS/OGR/HSD sees the Pedestrian/Bicyclist Enforcement and Equipment Grant as a program that will promote awareness among drivers about pedestrians as well as bicyclists that share the roadways with them. The funding for the program will allow at least 80 local police departments to receive awards to support overtime enforcement and equipment purchases. There will be an emphasis on promoting pedestrian safety media in areas of high pedestrian fatalities such as Boston, Springfield, and Worcester as well as reaching out to municipalities within the county those cities are in to, hopefully, attract more applicants for grant funding. Increased police involvement along with the impact of equipment purchases and targeted media outreach will raise awareness of pedestrian and bicycle safety across the state. Consequently, this should lead to lower pedestrian and bicyclist fatalities in the coming years.

Communication Campaign

In 2016, pedestrian fatalities held steady at 80, same as it 2015. To move this number lower, EOPSS/OGR/HSD plans to launch a paid and earned media campaign to raise awareness among drivers, pedestrians, and bicyclists of the need to share the roadways responsibly. This campaign will use both online and offline (radio, television, electronic signs) mediums to spread the message and will be done concurrently with local police pedestrian and bicyclist overtime enforcement activity.

Highway Safety Office Program Management

The day-to-day operation of EOPSS/OGR/HSD requires funding to allow staff to properly oversee the pedestrian and bicyclist safety program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Planned Programming

PS-19-01 Pedestrian and Bicyclist Safety Media

Develop and implement a pedestrian and bicyclist safety paid and earned media campaign, in conjunction with the Massachusetts Department of Transportation's (DOT) Traffic Safety Division, which will encourage all road users to safely share the road, educate the public on related traffic laws, and promote the enforcement efforts of local police departments. EOPSS/OGR/HSD will analyze local and national crash and fatality data to identify the timing and target audience. EOPSS/OGR/HSD will contract with a marketing and advertising agency to execute the media campaign. Social media will be used for sustained educational efforts.

Internal policies will be followed noting that all media communications activities should be in support of data-driven objectives and in coordination with other activities and programs, in particular, enforcement. Crash and citation data will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Projected Budget: $150,000.00

CM Strategy Justification: Communication Campaign

PS-19-02 Local Police Pedestrian & Bicyclist Enforcement/Equipment Program

Award grants to municipal police departments to conduct enforcement activities aimed at reducing the incidence of pedestrian and bicyclist injuries and fatalities. Enforcement patrols will take place throughout the year, with departments utilizing crash data and trends to select timing and locations of enforcement activities. Purchase of equipment and educational materials by subrecipients will be allowed in order to enhance crosswalk visibility and pedestrian and bicyclist safety. The percent of awarded funding allowed for equipment and educational material purchases will be no more than 25% of the subrecipient's award.

Projected Budget: $600,000.00

CM Strategy Justification: Pedestrian Safety Zones

PS-19-03 Community-Based Pedestrian and Bicyclist Safety Program

Competitive and discretionary grant awards will be provided to one or more organizations such as Girl Scouts, Boy Scouts, PTOs, schools, faith-based and advocacy groups, etc., that will implement community-based programs. The eligible applicants may include both non-profit 501(c)(3) or governmental agencies.

This planned activity will consist of one or more data-driven competitive gran programs that will be focused in geographical areas and/or high risk populations that have demonstrated need in the area of pedestrian and bicyclist safety.

The programs will generally be focused on raising awareness of road safety, training, and changing social attitudes and behaviors in order to reduce vehicle crashes and their associated fatalities, serious injuries and economic losses on the state's roadways.

This will not be a traffic enforcement program, but EOPSS/OGR/HSD will encourage applicants to develop new or enhance existing partnerships with law enforcement agencies to achieve project goals.

Selected grant subrecipients will develop and implement traffic safety improvement educational and awareness programs that address issues in their targeted communities. Programs that focus on high risk groups or behaviors will be prioritized. Organizations will be encouraged to build partnerships that incorporate a whole-community, data-driven approach to identifying and addressing road safety problems. The formation of community-wide road safety coalitions that bring together a wide constituency to focus on aspects of road safety will also be encouraged.

Projects that will develop and implement educational curriculum that aim to install a life-long road safety culture in the Commonwealth's citizenry will also be prioritized. Projects may also incorporate social, and/or traditional media strategies to change risky behavior on the state's roadways.

The competitive grant solicitation may guide potential applicants to various informational resources such as:

- National Highway Traffic Safety Administration (NHTSA)
- Center for Disease Control and Prevention (CDC)
- Governors Highway Safety Association (GHSA)
- Insurance Institute for Highway Safety (IIHS)
- National Safety Council (NSC)
- American Automobile Association (AAA)
- The Vision Zero Network
- Mothers Against Drunk Driving (MDAA)
- Students Against Destructive Decisions (SADD)

Projected Budget: $25,000.00

CM Strategy Justification: Conspicuity Enhancement

PS-19-04 Program Management – Pedestrian and Bicycle Safety Program

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage and office supplies.

Projected Budget: $100,000.00

CM Strategy Justification: Highway Safety Office Program Management

Program Area (DD): Distracted Driving

Distracted driving occurs when a driver fails to pay full attention to the task of driving. It occurs anytime a driver diverts his/her attention from the roadway. While this includes traditional distractions such as talking to passengers, eating, and adjusting radio controls, the use of hand held and built in electronic devices such as phones, tablets, infotainment systems, laptop computers, and GPS have quickly added major risks to the safety and health of all road users. Additionally, the exponential growth and use of available smart phone apps continues to compound the problem.

An additional issue related to distracted driving is that data may reflect an under reporting of the problem. Unless a driver, passenger, or witness to the crash confirms the distracted behavior, law enforcement must get cell phone records to confirm any usage at the point of impact or just before a crash occurred, and that may not always happen.

In 2016, nine percent of all fatal crashes in the U.S. were reported as 'distraction-affected' (*Traffic Safety Facts - Distracted Driving 2016*, DOT HS 812 517, April 2018) crashes involving one or more of the following distractions: an occupant; a moving object in the vehicle, talking on a cell phone; manipulating a cell phone; adjusting audio, climate or other controls in vehicle; reaching for a device or object; an outside person, object, or event; eating or drinking; smoking; daydreaming; and general distraction/carelessness.

Of the 3,210 drivers involved in a distraction-affected fatal crash in the United States in 2016, nine percent were 15 to 19 years old. In Massachusetts, there were 28 documented 'distraction-affected' fatal crashes in 2016 - eight percent of all fatal crashes. These crashes resulted in 28 fatalities or 7% of all fatalities. The percentage of 15 to 19 year old drivers involved in a distracted driving crash was lower than the 2016 national rate at 7%.

From 2012 to 2016, Massachusetts has had 2,356 drivers involved in a fatal crash. 151 of these crashes (6%) were documented as a 'distraction-affected'. Of the 151 drivers, 68% were male. Males accounted for 67% of those drivers using a cell phone. Below is a chart that details the highest percentage of distracted-related crashes by day and time. The highlighted squares are the highest time frames for that particular day. Monday, Wednesday and Friday have the 3pm - 5:59pm period with the most crashes. Distracted driving crashes happened more often in the PM hours (12pm-11:59pm), 59% compared to 41% in the AM hours (12am-11:59am).

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:00am - 2:59am	17%	10%	0%	9%	5%	4%	22%
3:00am - 5:59am	13%	5%	0%	0%	11%	4%	0%
6:00am - 8:59am	4%	15%	21%	23%	11%	4%	11%
9:00am - 11:59am	9%	20%	16%	9%	11%	19%	22%
12:00pm - 2:59pm	22%	10%	16%	18%	26%	15%	6%
3:00pm - 5:59pm	17%	20%	5%	32%	16%	26%	17%
6:00pm - 8:59pm	4%	20%	37%	5%	21%	19%	11%
9:00pm - 11:59pm	13%	0%	5%	5%	0%	11%	11%

In 2016, fatalities in distracted driving crashes were 7% of total traffic fatalities - down from 9% in 2015. Since 2012, there have been 150 fatalities reported in distraction-affected fatal crashes, approximately 8% of all traffic fatalities during the same period. With the exception of a few, most crashes involving a distraction had one fatality. Data from 2012 to 2016 finds that speeding was a factor in a crash only 16% of the time, which may be a factor in the low number of multiple fatalities in distraction-affected crashes. Another factor in the low number of multiple-fatality crashes is the roadway function, which can affect how fast drivers may travel. The chart below shows that nearly a third of distracted driving fatal crashes occurred on local roads and only 3% of those local crashes involved speeding. In fact, over 80% of the crashes took place on roadways that typically have speed limits under 50 miles per hour.

Roadway Function	Speeding	No Speeding	Total
Interstate	3%	9%	11%
Freeway-Expressway	1%	6%	7%
Principal Arterial	4%	22%	26%
Minor Arterial	4%	16%	20%
Major Collector	1%	5%	6%
Local Road	3%	26%	29%

Not only do arterial, collector, and local roads have lower speed limits, they also tend to have more traffic control devices such as stop signs and/or signals. Going through a red (stop) or yellow (warning) light is more likely if a driver is inattentive. Forty percent of distraction-affected crashes were documented at some type of intersection (Four-way, T-shaped, Y-shaped, Five Point or more) from 2012 to 2016.

A closer look at non-intersection distraction-affected crashes reveal that the most frequent reason for a crash was a driver swerving to avoid a pedestrian or animal. According to NHTSA, driving at 55 miles per hour while sending or reading a text message takes your eyes off the road for approximately five seconds, which is roughly equivalent to driving the distance of a football field while blindfolded. Imagine looking down for five seconds along a road and then looking up to see a pedestrian or animal in the road, you swerve to avoid a collision and end up going off the road, crossing into another lane, or hitting a car in the lane next to you. Loss of control/driving off the road and swerving to avoid a person or animal made up 53% of all non-intersection distracted driving crashes.

	2012	2013	2014	2015	2016	Total
Non-Intersection Crashes	***14***	***26***	***14***	***20***	***15***	***89***
Drive off road/loss of control	3	10	3	3	4	23
Avoid pedestrian or animal	4	8	2	5	5	24
Total	*7*	*18*	*5*	*8*	*9*	*47*
Percent of all non-intersection	50%	69%	36%	40%	60%	53%

Since 2012, distraction-affected crashes have occurred more often in Bristol and Worcester counties. These two counties accounted for 29% of all distraction-affected fatal crashes from 2012 to 2016. Through the planned distracted driving activities in FFY 2019, a focus will be on male drivers in the municipalities that have the most severe problems in these areas along arterial and local roads during the evening rush period (3pm - 9pm).

	Distracted Driving Crashes (2012-2016)	Percent of All Distracted Driving Crashes
Barnstable	8	5%
Berkshire	10	7%
Bristol	22	15%
Essex	6	4%
Franklin	5	3%
Hampden	13	9%
Hampshire	10	7%
Middlesex	16	11%
Norfolk	15	10%
Plymouth	18	12%
Suffolk	4	3%
Worcester	20	14%
Total	**147**	

While distraction-affected fatal crashes have fluctuated from 2012 to 2016, with an average of 30 per year, the ability of a driver to maintain focus on the road is constantly being challenged each and every time they get behind the wheel. From cell phone notifications and alerts to other distractions, there is always something pulling the driver's attention from the road ahead.

Performance Measure for Program Area

Number of distraction-affected fatal crashes

Countermeasure Strategies to be Implemented

High Visibility Cellphone/Text Messaging Enforcement

Similar to sobriety checkpoints, the objective of this countermeasure is to deter cell phone use by increasing the perceived risk of a ticket. The high visibility approach combines law enforcement with paid and earned media supporting the enforcement activity. Enforcement officers will seek out drivers actively using or looking at their phones while driving, either through assigned patrols or having a 'spotter' reporting usage to an officer at a location further up the road. During FFY 2019, both the State Police and local police departments (the number of departments yet to be determined) will participate in a coordinated effort to make the general public aware of the dangers of distracted driving as well as upping the fear of receiving a ticket for violating the law regarding electronic device usage while driving.

From 2012 to 2016, nine percent of all Massachusetts fatal crashes involved a distraction, with 46% of these 'distraction-affected' crashes occurring between Friday morning and Sunday evening. EOPSS/OGR/HSD will have State and local police departments involved in the high visibility enforcement conduct a majority of their planned patrols during this time

frame. EOPSS/OGR/HSD will also reach out to local police in the three highest distracted driving crash counties – Bristol, Plymouth, and Worcester – to hopefully increase the number of applicants for funding from these counties.

High visibility enforcement activities have been shown to be an effective countermeasure to increase awareness among drivers and passengers. EOPSS/OGR/HSD sees the combination of enforcement and education through a targeted media campaign as the best use of funding to impact a high percentage of the driving population in Massachusetts.

Communication Campaign

Public outreach, whether by radio, television, outdoor displays or social media, is necessary to spread the message of paying attention to the road ahead while behind the wheel. EOPSS/OGR/HSD sees media campaigns for distracted driving as having a two-fold impact: 1) to support and enhance the importance of keeping one's eyes on the road when driving during the planned distracted driving enforcement mobilization in April 2019; and, 2) to continue reminding Massachusetts drivers of the dangers involved in using cell phones while behind the wheel.

Highway Safety Office Program Management

The day-to-day operation of EOPSS/OGR/HSD requires funding to allow staff to properly oversee the distracted driving safety program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Planned Programming

DD-19-01 Distracted Driving Media

EOPSS/OGR/HSD will develop and implement a statewide paid and earned media campaign to support the April 2019 enforcement mobilization which will highlight the dangers of distractions, state laws, and the work of local and state police to deter distracted driving. EOPSS/OGR/HSD will analyze state and local crash and fatality data as well as research on mobile and app usage trends to identify target audiences and the mediums used to reach them.

EOPSS/OGR/HSD will continue to message to the parents of teen drivers age 15-19 as this age group represents the largest proportion of drivers distracted at the time of fatal crashes. Paid and earned media funds will highlight the dangers of distractions during the "100 Deadliest Days" from Memorial Day to Labor Day.

EOPSS/OGR/HSD will contract with a marketing and advertising vendor.

Internal policies will be followed noting that all media communications activities should be in support of data-driven objectives and in coordination with other activities and programs, in particular, enforcement. Crash and citation data will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Projected Budget: $ 200,000.00

CM Strategy Justification: Communication Campaign

DD-19-02 MSP Distracted Driving Enforcement

The Massachusetts State Police (MSP) will conduct distracted driving law enforcement, using internal RAMS data to determine the appropriate days, times, and locations. The preliminary timeline for this project will be based on data and guidance from NHTSA, as well as other distracted driving events. MSP will employ several trusted high-visibility strategies such as spotter techniques, roving marked and unmarked cruisers and SUVs, as well as stationary vehicles. Since distracted driving is associated with driving behaviors such as operating at inappropriate speeds, slow reaction time, and weaving among traffic, these behaviors will receive special attention during enforcement periods.

Projected Budget: $ 300,000.00

CM Strategy Justification: High-Visibility Cellphone/Text Messaging Enforcement

DD-19-03 Local Police Distracted Driving Enforcement

Provide overtime funds to municipal police departments to conduct enforcement of distracted driving laws. Not only will enforcement patrols seek out violators who use cellphones and other electronic devices while driving, but also those who exhibit associated distracted driving behaviors such as operating at inappropriate speed, slow reaction times, and weaving among traffic. Patrols will be conducted during high-risk times and locations based on the latest available state and local data. Eligibility will be based upon crash data, subtracting crashes the MSP responded to, and then normalized by population. For the FFY 2018 program, any community with a crash rate equal to or above 0.09 was deemed eligible for this program. This eligibility criteria may be adjusted for the FFY 2019 program. Under this project, participating departments may request funding for traffic enforcement equipment including, but not limited to, speed measurement devices, and traffic safety signage.

Projected Budget: $ 625,000.00

CM Strategy Justification: High Visibility Cellphone/Text Messaging Enforcement

DD-19-04 Higher Education Distracted Driving Media Program

Provide grant funds to a college or university to develop a seat belt media campaign that resonates with younger drivers. The grant will be given to an academic department such as journalism, marketing, or one related to video/advertising production. It will be required that a department faculty member oversees the project including paying for student stipends, supplies, production costs, and travel.

The intent is to generate messaging that is conceptualized, developed, produced, and disseminated by young people to their peers. The end product(s) may be disseminated via social or earned media. The student workers will be given day-to-day guidance from the faculty member and also be able to work with the EOPSS/OGR/HSD staff and media vendor for additional direction. It is hoped that the end product(s) will be accepted by the target audience as peer-to-peer messaging as opposed to government messaging.

Projected Budget: $ 10,000.00

CM Strategy Justification: Communication Campaign

DD-19-05 Community-Based Distracted Driving Grant Program

Competitive and discretionary grant awards will be provided to one or more organizations such as Girl Scouts, Boy Scouts, PTOs, schools, faith-based and advocacy groups, etc., that will implement community-based programs. The eligible applicants may include both non-profit 501(c)(3) or governmental agencies.

This planned activity will consist of one or more data-driven competitive gran programs that will be focused in geographical areas and/or high risk populations that have demonstrated need in the area of distracted driving.

The programs will generally be focused on raising awareness of road safety, training, and changing social attitudes and behaviors in order to reduce vehicle crashes and their associated fatalities, serious injuries and economic losses on the state's roadways.

This will not be a traffic enforcement program, but EOPSS/OGR/HSD will encourage applicants to develop new or enhance existing partnerships with law enforcement agencies to achieve project goals.

Selected grant subrecipients will develop and implement traffic safety improvement educational and awareness programs that address issues in their targeted communities. Programs that focus on high risk groups or behaviors will be prioritized. Organizations will be encouraged to build partnerships that incorporate a whole-community, data-driven approach to identifying and addressing road safety problems. The formation of community-wide road safety coalitions that bring together a wide constituency to focus on aspects of road safety will also be encouraged.

Projects that will develop and implement educational curriculum that aim to install a life-long road safety culture in the Commonwealth's citizenry will also be prioritized. Projects may also incorporate social, and/or traditional media strategies to change risky behavior on the state's roadways.

The competitive grant solicitation may guide potential applicants to various informational resources such as:

- National Highway Traffic Safety Administration (NHTSA)
- Center for Disease Control and Prevention (CDC)
- Governors Highway Safety Association (GHSA)
- Insurance Institute for Highway Safety (IIHS)
- National Safety Council (NSC)
- American Automobile Association (AAA)
- The Vision Zero Network
- Mothers Against Drunk Driving (MDAA)
- Students Against Destructive Decisions (SADD)

Projected Budget: $ 25,000.00

CM Strategy Justification: Communication Campaign

DD-19-06 Program Management – Distracted Driving

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage and office supplies.

Projected Budget: $ 30,000.00

CM Strategy Justification: Highway Safety Office Program Management

Program Area (TR): Traffic Records

Traffic records data are vital to the analysis necessary for successful highway safety planning and programming. Our agency, in coordination with our partners, collects and uses traffic records data to identify problem areas, develop and implement appropriate programs and evaluate the effectiveness of these programs.

Massachusetts operates a complete set of systems to receive, store and manage traffic records information. These systems are managed by the following agencies:

- MassDOT/RMV manages the crash, driver history and vehicle registration systems.
- The Merit Rating Board maintains operator driving history records consisting of at-fault crash claim records, comprehensive claim records, out-of-state incidents as well as civil and criminal traffic citation information.
- The Administrative Office of the Trial Court manages adjudication information.
- The MassDOT Office of Transportation Planning manages the road inventory file.
- The Massachusetts Department of Public Health (DPH) and the Center for Health Information and Analysis manage injury surveillance related information systems.

As required by NHTSA's Section 405c grant program, Massachusetts has an active two-tiered Traffic Records Coordinating Committee (TRCC), which is supported by a Traffic Records Program Coordinator located within the Office of Grants and Research Highway Safety Division. The Executive-level Traffic Records Coordinating Committee (ETRCC), currently chaired by the Undersecretary of Forensic Science and Technology, was established through the coordinated efforts of its member organizations. The ETRCC is comprised of agency heads or senior personnel who set the vision and mission for a Working-level TRCC. The Working-level TRCC is the primary means by which communication is facilitated and perpetuated between the various users and collectors of data, and owners and custodians of the data systems that make up the Commonwealth's traffic records systems. These TRCCs foster understanding among stakeholders and promote the use of safety data in identifying problems and developing effective countermeasures to improve highway safety. Both committees seek to improve the accessibility, accuracy, completeness, uniformity, integration, and timeliness of the six traffic records systems in Massachusetts: citation/adjudication, crash, driver, injury surveillance, roadway, and vehicle. One way this is accomplished is by ensuring that all Section 405 C funds received by Massachusetts are used for eligible, prioritized projects that will enhance these systems.

The FFY 2019 Section 405 C application and 2019 Strategic Plan for Traffic Records Improvements contains details pertaining to the current capabilities and challenges of the Massachusetts traffic records systems. It also describes the progress made to date on projects. The 2019 Strategic Plan is expected to be submitted in June 2018.

Although Traffic Records' performance targets are not among the core performance measures required by NHTSA, these targets (shown below) allow the TRCC to monitor progress made as well as provide key statistics for inclusion in the yearly Strategic Plan.

Performance Measures for Program Area

Performance Target #1:
To improve the integration of traffic records systems by increasing the number of linked Massachusetts EMS/crash reports from 0% to 75% from January 1 to December 31, 2018.

Performance Target #2:
Develop a business plan for a new MassTRAC by December 31, 2018.

Performance Target #3:
To improve the accuracy and completeness of the RMVs Crash Data System by decreasing the number of crash reports rejected for not meeting the minimum criteria from 1,487 between April 1, 2017 and March 31, 2018 to 1,425 or less between April 1, 2018 and March 31, 2019.

Performance Target #4:
To improve completeness of MATRIS, increase the number of ambulance services submitting NEMSIS Version 3 reports to the system from 0 between April 1, 2017 to March 31, 2018 to 3 or more between April 1, 2018 to March 31, 2019.

Performance Target #5:
To improve the completeness of the Massachusetts statewide road inventory database by increasing the number of intersections with Fundamental Data Elements (FDEs) from 0 as of June 30, 2017 to 5,400 as of December 31, 2018.

To determine the performance targets for FFY 2019, EOPSS/OGR/HSD reviewed FFY 2015, 2016, 2017 and 2018 Traffic Records project proposals, previous Strategic Plans for Traffic Records Improvement and data from DPH and the RMV.

Countermeasure Strategies to be Implemented

Traffic records-related planned activities are aimed at making core highway safety data accessible, accurate, timely, integrated and complete. The countermeasures listed in NHTSA's *Countermeasures That Work, 8th Edition* do not apply to traffic records projects. Each planned activity provided below has an overarching goal of improving the quality of data that will be accessible by traffic safety agencies and stakeholders in Massachusetts and help improve resource management and fund allocation by accurately highlighting 'hot spots' and areas of concern in a timely manner.

These are the five 'countermeasure' strategies that apply to traffic records projects for FFY 2019:

- Improves timeliness of a core highway safety database
- Improves integration between one or more core highway safety databases
- Improves completeness of a core highway safety database
- Improves accuracy of a core highway safety database
- Improves accessibility of a core highway safety database

Each strategy is straight forward and self-explanatory. The TRCC will not approve any project that does not have a goal of improving the traffic records system in some way.

There is one countermeasure associated with traffic records that comes from NHTSA's *Countermeasures That Work, 8th Edition* and that is:

Highway Safety Office Program Management

The day-to-day operation of EOPSS/OGR/HSD requires funding to allow staff to properly oversee the traffic records program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts

Planned Programming

TR-19-01 MassTRAC

Funding will be used by EOPSS/OGR/HSD to secure a vendor(s) to develop and support a new MassTRAC system to reside within the open source environment of Mass.gov. Like its predecessor, the new MassTRAC will be a web-based solution for traffic records analysis, mapping, and reporting. In addition to the crash and citation data sets of its predecessor, the new tool would also include driver, EMS/injury/healthcare-related, roadway, and vehicle data sets. The new MassTRAC would help EOPSS/OGR/HSD meet federal reporting requirements and support safety planning processes across the Commonwealth. The new system would provide quick and easy user access to its raw data as well as basic and higher data analytical functions and data visualization/mapping tools. One of the recommendations of the 2014 Traffic Records Assessment was to maximize the use of traffic records systems data by traffic safety stakeholders. In May 2018, the Massachusetts Traffic Records Coordinating Committee (TRCC) voted to approve EOPSS/OGR/HSD's new MassTRAC project concept and to reserve up to $375,000 of anticipated FFY 2019 Section 405c funding for the project. Use of any of this funding is subject to additional Executive-level TRCC approval following a review of a new MassTRAC business plan expected in late 2018.

Projected Budget: $ 425,000.00

CM Strategy Justification: Improves accessibility of a core highway safety database

TR-19-02 FARS

NHTSA will be provided, through a dedicated Massachusetts Registry of Motor Vehicles (RMV) position, with the fatal crash data for FARS and FastFARS required in the NHTSA-EOPSS/OGR/HSD 2017-2022 cooperative agreement. The FARS analyst will collect and process data concerning motor vehicle-related fatalities, utilizing all available resources, in order to develop a database sufficient to meet federal requirements. One of the recommendations of the 2014 Traffic Records Assessment was to maximize the use of traffic records systems data by traffic safety stakeholders.

Projected Budget: $ 82,000.00 (*via Cooperative Agreement with MassDOT*)

CM Strategy Justification: Improves completeness of a core highway safety database

TR-19-03 MACCS

MACCS is a browser-based application that will be available statewide for the purpose of collecting, reconciling, and exchanging motor vehicle incident information including: electronic citation reporting, crash reporting, alcohol test refusal reporting, and traffic stop data collection. The MACCS project is the result of a partnership between EOPSS/OGR/HSD, local and state law enforcement, and MassDOT, and has been approved for funding by the Massachusetts Traffic Records Coordinating Committee. The goals of the MACCS project are to ensure greater officer safety by making the reporting process more efficient at the roadside, improve data quality by implementing checks at the point of entry and upon submittal, and eliminate redundant data entry processes for agencies across Massachusetts. This project will ultimately increase the timeliness, completeness, uniformity and accuracy of electronic crash and citation data submissions as called for in the 2014 Traffic Records Assessment. The MACCS pilot commenced in July 2013 to field test the application and in-vehicle hardware (i.e. scanners, printers), identify deficiencies and potential improvements, and support proactive planning in the future potential rollout of the MACCS system statewide.

The MACCS pilot continues to test system functionality and data exchanges with a targeted number of agencies and end-users representing a diverse cross-section of the Commonwealth's public safety community. The pilot sites are being rolled out incrementally, with feedback from users on each new deployment informing changes to be tested in the next iteration. Feedback is gathered through a formal error/enhancement reporting processes, as well as several working group meetings with the project team and the end-user community. Results and feedback from the pilot are instrumental in informing the ongoing development of MACCS, as well the strategy for a future roll-out of MACCS components statewide. To date, the pilot testing has been conducted for the citation, crash, and traffic stop data collection modules.

In FFY 2015 and FFY 2016, extensive progress was made on the development of the Public Safety Data Analytics Platform and Tool (ADAPT), which will provide public safety analysts, managers, and policy-makers with the ability to analyze a range of existing public safety data. Funding in FFY 2017 and 2018 will be used to help with the interface with records management systems, provide printers for state and local law enforcement cruisers, and to develop and implement a Train-the-Trainer course for the MACCS. EOPSS/OGR/HSD will continue working with the courts and Merit Rating Board on outstanding issues related to the processing of criminal citations.

If approved by EOPSS, Section 1906 funding will be used to collect and maintain statistical information on the race and ethnicity of drivers that were stopped by law enforcement using MACCS. However, law enforcement will not be required to collect this information. These data will be collected by MSP, but local law enforcement will have the option of collecting data if they choose. Possible uses of the funding include but are not limited to the following: interfacing records management systems with MACCS, updating ADAPT to help analyze the data, or purchasing servers and other equipment identified by EOPSS/OGR/HSD and law enforcement to help with the collection of data.

Projected Budget: $ 1,500,000.00

CM Strategy Justification: Improves integration between one or more core highway safety databases

TR-19-04 Investigation of Improved Linkage Strategy

Funding unspent in FFY 2018 will be provided to the University of Massachusetts Traffic Safety Research Program (UMassSAFE) to continue to investigate improved data linkage processes and strategies for linking highway safety data sets, specifically crash and emergency medical services data. This funding, approved by the TRCC, will cover UMassSAFE personnel costs along with indirect and consultant costs. The project will help to better integrate data in the Massachusetts traffic records systems as recommended in the 2014 Traffic Records Assessment.

Projected Budget: $ 129,534.00

CM Strategy Justification: Improves integration between one or more core highway safety databases

TR-19-05 Data Quality Review of Crash Reports

Funding unspent in FFY 2018 will enable the RMV to continue its work with UMassSAFE to develop and implement processes for reviewing crash reports that have been "accepted with warning" by the RMV. Work will then be done with police departments to improve the accuracy and completeness of submitted crash reports. Further outreach by the RMV's Crash Data System Law Enforcement Liaison (LEL) with police departments will improve crash reporting by expanding their understanding of common errors. This funding was approved by the TRCC and will improve the data quality control program of the crash data system as recommended in the 2014 Traffic Records Assessment.

Projected Budget: $ 196,803.00

CM Strategy Justification: Improves accuracy of a core highway safety database

TR-19-06 Tools for Improving Crash Reports Reviews Project

Funding unspent in FFY 2018 will enable UMassSAFE to continue to build on an earlier successful project, Crash Data Audit, was well as to identify and then implement improvements to the supervisory review of crash reports before submission to the RMV. This funding, which has been approved by the TRCC, will enhance accuracy, completeness, and uniformity of the crash data system. This project will improve the data quality control program for the crash data system as recommended in the 2014 Traffic Records Assessment.

Projected Budget: $ 172,093.00

CM Strategy Justification: Improves accuracy of a core highway safety database

TR-19-07 Data Uniformity, Accuracy, Completeness and Timeliness

Funding unspent in FFY 2018 would be provided to the Massachusetts Department of Public Health (DPH) to continue to make improvements to MATRIS and the Trauma Registry. MATRIS is currently based on the National EMS Information System (NEMSIS) version 2 (V2) data set standard developed in 2005. MATRIS must migrate to the new standard as NEMSIS will soon no longer collect V2 data. The electronic Patient Care Report (ePCR) vendor software used by ambulance services to collect and submit data to MATRIS will be migrated to the new version in the next year. DPH will need to upgrade the software platform and build out a new server. Funding will also be used to expand and improve upon a process highlighted by the South Shore Hospital using MATRIS as a central location to access trip records and perform quality assurance/quality improvement reviews for 10 ambulance services. The Trauma Registry (as well as all entities covered by the Health Insurance Portability and Accountability Act) must transition from the International Classification of Diseases version 9 to version 10. Funding will also be used for coordination and training with hospitals and vendors.

With any funding unspent in FFY 2018, this project will continue to enhance the accessibility, accuracy, completeness, integration, timeliness, and uniformity of both systems. This funding, approved by the TRCC, will help meet related recommendations from the 2014 Traffic Records Assessment to continue to grow and promote MATRIS and the Trauma Registry.

Projected Budget: $ 180,000.00

CM Strategy Justification: Improves accuracy of a core highway safety database

TR-19-08 MATRIS and Trauma Registry National Standard Uniformity and Data

MATRIS: Is currently based on the National EMS Information System (NEMSIS) Version 2 (V2) data set standard developed in 2005. The NEMSIS Technical Assistance Center developed a major revision to NEMSIS Version 3 (V3) released in 2011 which the industry has adopted and many states and ambulance services have already converted to. MATRIS will migrate to this new standard to continue collecting NEMSIS compliant data from ambulance services as the

software vendors are sun-setting their V2 products. This project is in progress but needs additional funding to complete the effort and migrate over 300 ambulance services.

For the MATRIS NEMSIS V3 upgrade, a revised data dictionary incorporating the new national and state requirements of NEMSIS V3 as well as additional data elements and values identified as important for better injury prevention and performance measurement analysis and linkage will be developed.

To implement NEMSIS V3, MATRIS is upgrading the software platform and has built out a new server environment at MassIT. Configuration of an interface for ambulance services to manually enter and view their data in MATRIS will be designed and tested internally and with pilot ambulance services.

Trauma Registry: Hospitals are required to submit data to the Trauma Registry in accordance with Hospital Licensure regulations (105 CMR 130.851 and 105 CMR 130.852) and Circular Letters (DHCQ 08-03-483). Hospitals designated as trauma centers are held to the standards set by the American College of Surgeons' (ACS) National Trauma Data Standards (NTDS). The International Classification of Diseases, Tenth Edition (ICD-10 coding) was first implemented into the hospital coding on October 1, 2016. The ICD-10 coding has revisions to enhance and clarify the codes that are used by the trauma registrars and billing coders. In order to keep current with the industry standards from both the NTDS and ICD-10 codes, this project will enable the Trauma Registry system to implement the annual ACS/NTDS and ICD-10 changes.

An appropriate web-based trauma registry system with sufficient reporting capabilities will be set up to automatically send out timely quarterly reports to the submitting hospitals resulting in an increase in uniformity and quality of data reporting. The new system capabilities will free up resources to prioritize the annual maintenance of the state specification guidelines which will increase the accuracy and integration of the reporting data to meet the national standards and state requirements. As the data quality and accuracy improves over time, the data can be made accessible to internal and external customers as data requests, annual reports, research projects, data linkages, etc. The integration of the trauma registry data with other datasets will help researchers, programs, and policy makers develop informed conclusions thereby helping to keep the Massachusetts population safer with target based interventions.

CDC grant funding is also covering a portion of the MATRIS NEMSIS V3 migration project.

With funding unspent in FFY 2018 the project will continue to enhance the accessibility, accuracy, completeness, integration, timeliness, and uniformity of both systems. This funding, approved by the Massachusetts Traffic Records Coordinating Committees, will help to meet recommendations from the 2014 Traffic Records Assessment to continue to grow and promote MATRIS and the Trauma Registry.

Projected Budget: $ 414,779.00

CM Strategy Justification: Improves accuracy of a core highway safety database

TR-19-09 Boston Cyclist, Pedestrian and Vehicular Incident Information System

Boston Emergency Medical Services (EMS) began this project in FFY 2013 to address information gaps, inconsistent data gathering and analysis, and the lack of usable real time data to guide decisions on traffic safety and transportation policy in Boston. Major project deliverables include: project management and coordination by a Boston EMS paramedic serving as project lead, specifically for validating the project's key data components; data vetting for every roadway incident to ensure the data sets have the most accurate data; data analysis to ensure timely reports to meet the unique needs of the intended audience through system development of a GIS dashboard tool; stakeholder engagement, and data review; project lead to provide training of EMS personnel to support system enhancement; training and professional development

of project staff to optimize in-house capabilities for best addressing the project goal and deliverables. The city will cover the cost of ongoing public awareness efforts to enhance bicyclist and pedestrian safety. One of the recommendations of the 2014 Traffic Records Assessment was to maximize the use of traffic records systems data by traffic safety stakeholders.

Projected Budget: $ 118,453.00

CM Strategy Justification: Improves accuracy of a core highway safety database

TR-19-10 Test the Template Developed by VHB for MIRE FDEs for Intersections

The Federal Highway Administration (FHWA) considers the presence of a traffic control device at an intersection and the device's type, if one is present, as Fundamental Data Elements (FDE) of a Model Inventory Road Element (MIRE). The Massachusetts statewide road inventory currently does not contain the required FDEs for intersections. MassDOT has a contract with a vendor to develop and deploy a template to be used to collect these FDEs so that they can be added to the road inventory. Funding unspent in FFY 2018 will enable this project continue to use this vendor template to collect FDEs for a subset of the intersections in the state. Also to refine the template as necessary before it is used to collect FDEs for intersections statewide. This funding, approved by the TRCC, will continue the project to improve the roadway data system as recommended in the 2014 Traffic Records Assessment.

Projected Budget: $ 91,775.00

CM Strategy Justification: Improves completeness of a core highway safety database

TR-19-11 Projects to be approved by TRCC

An Availability of Grant Funding (AGF) will be issued to provide FFY 2019 Section 405(c) funding on a competitive basis to quantifiable and measurable projects to improve the accessibility, accuracy, completeness, integration, timeliness, and/or uniformity (a performance attribute) of one or more of the following six core traffic records systems: crash data system, roadway inventory file, vehicle registration, driver history, citation/adjudication, and injury surveillance system. Improving these systems will in turn enhance the ability to identify priorities for local, state, and federal traffic safety programs. Permissible projects could also evaluate the effectiveness of efforts to improve these six core traffic records systems; link these systems with other appropriate state or federal data systems; and enhance the ability of highway safety stakeholders to observe and analyze local, state, and national trends in crash occurrences, rates, outcomes, and circumstances. Only units of state and local government or not-for-profit organizations with a public purpose would be eligible to apply for funding. All funded projects must help to meet at least one unmet recommendation(s) from the Commonwealth's 2014 Traffic Records Assessment. Preference will be given to projects that have a minimum of one benchmark and one performance measure that will demonstrate at least one quantitative improvement to a performance attribute of a minimum of one of the state's six core traffic records systems. This quantitative improvement must be demonstrated with supporting information covering a 12-month performance period, starting anytime between April 1 and July 1, 2018, and comparable to a prior, contiguous benchmark period of one year. AGF responses would be reviewed by the Massachusetts Traffic Records Coordinating Committees. Those approved by the committees would then be submitted to EOPSS and then NHTSA for review and approval.

Projected Budget: $ 375,000.00

CM Strategy Justification: Improves completeness of a core highway safety database

TR-19-12 Program Management – Traffic Records

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage and office supplies.

Projected Budget: $ 120,000.00

CM Strategy Justification: Highway Safety Office Program Management

Program Area (PT): Police Traffic Services

The overarching goal of police traffic service is to help reduce traffic fatalities across the state. Better educated law enforcement members and judiciary personnel will improve approaches to traffic safety as well as address legal issues surrounding such situations as pulling over suspected DUI alcohol or drug impaired drivers. Some prior year activities under PTS included, but were not limited to:

- Police Training classes focused on enforcement of traffic safety laws through trainings on crash reconstruction, LiDAR, and speed management.
- Supporting a part-time Law Enforcement Liaison (LEL) who will continue to improve communications between EOPSS/OGR/HSD and local police departments.
- Updating the Massachusetts OUI Prosecutors manual, which will help prosecutors, judges, and law enforcement better understand the legal complexity of a successful OUI prosecution.
- Establishing a State Judicial Outreach Liaison (SJOL), most likely a retired judge, to provide expertise in handling OUI court cases.
- Providing funding to do outreach at local high schools on the dangers of speeding, impaired driving, and failing to wear a seat belt.
- Utilizing data analyst expertise to uncover key trends in the Massachusetts State Police Crash Data System (RAMS).

Through these planned activities, EOPSS/OGR/HSD aims to lower traffic fatalities across the Commonwealth by improving the knowledge base traffic safety stakeholders involved in each aspect of law enforcement, from enforcement on the roadways to prosecution in the courtrooms. The more informed law enforcement members are, the better they will be at detecting and removing unsafe drivers from the road.

Performance Measure for Program Area

C-1 Number of traffic fatalities

Countermeasure Strategies to be Implemented

Police Training Supporting Enforcement

Under this countermeasure, EOPSS/OGR/HSD has three planned activities – MPTC Training, LEL, and MSP Data Analyst. Each project will help improve law enforcement across the state. Funding for MPTC will allow the agency to offer numerous training classes for municipal police departments to attend related to speeding, pedestrian and bicyclist safety, and distracted driving. Topics include, but not limited to, Advanced Crash Investigation and Speed Measurement. Funding for the LEL position will help EOPSS/OGR/HSD better communicate with local police departments and other traffic safety stakeholders. By improving communication channels, all agencies with traffic safety concerns will be on the same page regarding shared goals. Funding for the MSP Data Analyst will help State Police uncover and identify 'hot spots' for various types of traffic-related fatalities, which will allow State Police to more effectively and efficiently use its limited resources.

DWI Courts

Based on the drug court model, DWI Courts are specialized courts dedicated to changing the behavior of DWI offenders through intensive supervision and treatment. A DWI Court's underlying goal is to change offenders' behavior by identifying and treating their alcohol and/or drug problems and holding offenders accountable for their actions. By improving the knowledge base of those involved in the DWI Court system, the correct course of action for offenders can be made with more confidence and ultimately lead to reduced numbers of DWI offenders coming through the courts.

In recent years, DWI Courts have been shown to be effective in reducing the recidivism rate of offenders and EOPSS/OGR/HSD is confident the two planned activities under this countermeasure will continue to lower the number of DWI offenders.

Court Monitoring

For FFY 2019, EOPSS/OGR/HSD will fund a Traffic Safety Resource Prosecutor (TSRP), a person designated by the Massachusetts District Attorneys Office, to conduct trainings, provide technical assistance, and maintain a vehicular crime database/resource for prosecutors and law enforcement to utilize in the court of law. Providing a database of vehicular crimes will assist prosecutors in handling cases, especially those involving impaired driving.

Funding the TSRP will help reduce the number of impaired driving fatalities on the roadways of Massachusetts. The more prosecutors and law enforcement know about drivers involved in impaired driving crashes, the better they can adjudicate and mete out punishment for offenders.

Planned Programming

PT-19-01 Municipal Police Training (MPTC)

Provide funding to the MPTC to conduct training classes for municipal police departments to improve enforcement of traffic safety laws related to speeding, pedestrian and bicyclist safety, and distracted driving. Topics will include, but not be limited to, Advanced Traffic Crash Investigation, Traffic Crash Investigation, Speed Measurement, and LiDAR training. Based on prior year activities, at least 10 classes will take place, training approximately 150 law enforcement officers.

Projected Budget: $ 238,750.00

CM Strategy Justification: Police Training Supporting Enforcement

PT-19-02 Law Enforcement Liaison (LEL)

Continue to provide funding to support the current LEL salary and related expenses for travel to attend meetings, trainings, and conferences in support of major traffic safety issues including but not limited to impaired and distracted driving, and occupant protection. National conferences will include the International Association of Chiefs of Police Conference in fall 2019 and the Lifesavers Conference in spring 2020. Funding will also be used to cover the cost of local travel as needed to meet with local law enforcement and other traffic safety stakeholders.

Projected Budget: $ 50,000.00

CM Strategy Justification: Police Training Supporting Enforcement

PT-19-03 MDAA/TSRP

Funds will be used to support the Traffic Safety Resource Prosecutor's (TSRP) salary to conduct trainings and conferences, provide technical assistance, and create and maintain vehicular crime resources for prosecutors and law enforcement.

The planned TSRP responsibilities dealing with impaired driving and motor vehicle-related issues includes:

- Train the Commonwealth's prosecutors and, subject to resources, other professionals in the criminal justice field including law enforcement officers and the judiciary
- Electronically alert prosecutors, law enforcement and other criminal justice professionals to changes in statutory and case law regarding motor vehicle crimes
- Maintain a database of vehicular crimes-related expert witness transcripts
- Create and maintain the vehicular crimes pages and resources on MDAA's Mass.gov public website and its secure intranet site, MDAA.net
- Continue to update the Massachusetts Prosecutors OUI Manual
- Monitor legislation in conjunction with MDAA's Special Counsel
- Provide technical assistance to prosecutors and, subject to resources, law enforcement officers, the judiciary, and other state and local agencies
- Act as liaison between prosecutors and other stakeholder entities including the Executive Office of Public Safety and Security, MADD, the Massachusetts Judicial Institute, the Municipal Police Training Council and the Administrative Office of the Trial Court

Projected Budget: $ 205,000.00

CM Strategy Justification: DWI Courts; Court Monitoring

PT-19-04 MSP LEL

Provide funds to MSP for training and travel-related expenses for the LEL to attend meetings, trainings and national conferences in support of major traffic safety issues including but not limited to impaired and distracted driving, occupant protection and drug recognition expert training. National conferences will include the International Association of Chiefs of Police Conference in the fall 2018 and the Lifesavers Conference in spring 2019. Funding will also be used to cover the cost of local travel for the LEL to attend meetings and trainings with local law enforcement and other traffic safety stakeholders.

Projected Budget: $ 9,000.00

CM Strategy Justification: Police Training Support Enforcement

PT-19-05 State Judicial Outreach Liaison (SJOL)

The Massachusetts HSD will hire one part-time (.5 FTE) State Judicial Outreach Liaison (SJOL) as a pilot project. Ideally, the MA SJOL position will be filled by a retired Massachusetts judge, with extensive experience in handling impaired driving or other traffic-related cases. According to SJOL guidance provided by the National Highway Traffic Safety Administration (NHTSA), the theory underlying the creation of SJOLs is that local judges, whether sitting or retired, are in better positions to understand and respond to local highway safety concerns, as it relates to their position, and are more likely to have close working relationships with local leaders, than are the National Judicial Fellows or the Regional JOLs. In addition, SJOLs serve as direct resources to State and local judges and have access to, or knowledge of national resources that benefit them.

According to NHTSA's Countermeasures that work document (CTW) related to Judicial Outreach Liaisons, DWI cases can be highly complex and difficult to prosecute, yet they are often assigned to the least experienced prosecutors. In one survey, about half of prosecutors and judges said the training and education they received prior to assuming their position was inadequate for preparing them to prosecute and preside over DWI cases (Robertson & Simpson, 2002a).

The SJOL will also work closely with the Massachusetts Traffic Safety Resource Prosecutor (TSRP) who already provides training, education, and technical support to other prosecutors and law enforcement agencies within the State. This will ensure a comprehensive and consistent approach to training, education, and technical support at all appropriate levels of the court system.

In addition to alcohol-related cases, Massachusetts prosecutors and judges also must process drug-related ones. This is important to note given the state's recent legalization of marijuana for both medical and recreational use. The SJOL will be instrumental in helping to ensure that judges have up-to-date information about the impacts drugs have on drivers, passengers, motorcyclists, bicyclists and pedestrians.

The SJOL will also strive to provide education about the knowledge, skills, and abilities of the state's Drug Recognition Experts (DREs) who can provide invaluable and credible testimony in impaired driving cases. Funds will also be provided for SJOL travel related expenses related to state and national conferences and trainings, and in-state travel.

Projected Budget: $ 100,000.00

CM Strategy Justification: DWI Courts

PT-19-06 MSP Young Drivers Education Program

Funds will be provided to the MSP for educating young drivers, as well as the general public, on the importance of wearing a seat belt and the dangers of impaired driving. MSP will conduct demonstrations of the Rollover Simulator, SIDNE vehicle (Simulated Impaired Driving Experience) and a Marijuana Simulation Kit at high schools, on weekends and at highly populated events in Massachusetts. This task will also provide funds for the purchase of a new Rollover Simulator, replacing the present one that is over 10 years old, and the purchase of a SIDNE vehicle upgrade to conduct demonstrations that related to advanced automobile technology. Additionally, this task will provide funds for the purchase of a Marijuana Simulation Kit to help educate the community about the potential dangers that can result from marijuana use. Before the purchase of any equipment greater than $5,000, prior authorization will be received from NHTSA. The MSP will abide by all Buy America Act requirements.

Depending on staff availability, MSP will make every effort to target high schools and public safety events within the top four counties for unrestrained fatalities as a percentage of all traffic-related fatalities in the county (Bristol, Essex, Worcester, Franklin) over the past 10 years as well as the top four counties for alcohol-involved fatal crashes (Worcester,

Bristol, Middlesex, Plymouth) during the same time frame. At a minimum, MSP will conduct six demonstrations across the top counties for unrestrained fatalities and alcohol-involved fatal crashes.

Projected Budget: $ 76,500.00

CM Strategy Justification: School Programs

PT-19-07 MSP Traffic Data Analyst

Funds will be used to support the salary of a Traffic Data Analyst trained to dissect, analyze and identify trends within the MSP RAMS system. The analyst will effectively maximize all available resources and provide analytics to Troop Commanders and Commanding Officers. Utilizing reports generated by the analyst, commanders will be better equipped to identify and target specific areas when scheduling patrols for sobriety checkpoints and national and state mobilizations addressing major traffic safety issues including, but not limited to, impaired and distracted driving, occupant protection and speeding.

Projected Budget: $ 75,000.00

CM Strategy Justification: Police Training Supporting Enforcement

PT-19-08 Program Management – Police Traffic Services

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage and office supplies.

Projected Budget: $ 125,000.00

CM Strategy Justification: Highway Safety Office Program Management

Program Area (PA): **Planning & Administration**

This section covers the Planning and Administration programming required to faithfully execute the planned activities detailed in the FFY 2019 Highway Safety Plan. Funding is needed to support EOPSS/OGR/HSD staff for day-to-day operations and to comply with any and all Federal and State regulations.

PA-19-01 Administration of Statewide Traffic Safety Program

Funding to plan, implement, monitor, and evaluate programs and projects detailed in the FFY 2019 Highway Safety Plan (HSP), produce the FFY 2018 Annual Report (AR) as well as produce the FFY 2020 HSP. Provide required staff salaries, professional development, travel, office space, equipment, materials, and fiscal support.

Project staff: Jeff Larason, Paul Garrity, Diane Perrier, Denise (Veiga) Brown, Susan Burgess-Chin, Angela Davis, and Kevin Stanton

Projected Budget: $567,000.00

CM Strategy Justification: Highway Safety Office Program Management

PA-19-02 Americans with Disabilities Act (ACA) Compliance

Provide funds for interpretation, translations, and specialized printing services for those in need of accommodations. Also, make necessary programmatic, organizational and procedural improvements to alert the public about the availability of such accommodations.

Projected Budget: $5,000.00

CM Strategy Justification: Highway Safety Office Program Management

Evidence-Based Traffic Safety Enforcement Plan (TSEP)

The statewide problem identification process used in the development of the HSP was described earlier in this section. Extensive data analyses were used to identify not only which traffic safety programs to focus on, but also on locations, regions and population segments of the Commonwealth that have high levels of crashes and fatalities. Key results summarizing the problems identified are described in detail within the program areas of this HSP. Highlights from the data presented thus far:

- In 2016, there were 395 fatalities in Massachusetts. This is the highest since 2007. This unfortunate development led to the five-year average increasing by 1.4% from 362 to 367. Rural fatalities saw a five-year average drop 15%, from 41 to 35 in 2016. The urban fatalities five-year average rose 3% from 320 to 329.

- Since 2007, fatalities have declined 9% from 434 to 395. At the same time, vehicle miles traveled (VMT) increased 11%. Fatalities per VMT dropped 18% from 0.79 in 2007 to 0.65 in 2016. The fact that fatalities continued to decline even though more cars were using the roadways is a testament to the impact of Massachusetts' traffic safety outreach, emergency response, enforcement, and civil engineering.

- The observed seat belt usage rate took a step backwards in 2017, dropping 4% from 78% in 2016 to under 74%. Concurrently, the five-year average of unrestrained passenger vehicle occupant fatalities dropped 3% to 102 in 2016. While the five-year average decline, the yearly number of unrestrained fatalities rose 20% to 113 from 106 in 2015. Because of these outcomes, occupant protection outreach, education and enforcement continues to be a key priority.

- From 2012-2016, Worcester County led all counties with 14% of Massachusetts' fatal crashes followed by Middlesex (14%) and Bristol (12%). These three counties accounted for 41% of all fatal crashes from 2012 to 2016. In terms of cities, the top five for fatal crashes were: Boston, Springfield, Worcester, Brockton, New Bedford and Middleboro.

- From 2012 to 2016, fatal crashes occurred most often on Saturday (18% of all fatal crashes), followed by Sunday (16%) and Friday (15%).

- By month, July, October, and November each had 10% of all fatal crashes. 56% of fatal crashes took place during the second half of the year (July – December).

- Drivers under 21 years of age made up only 8% of all drivers involved in a fatal crashes from 2012-2016. Drivers over 65 accounted for 15%.

- By time of day, 33% of all fatal crashes occurred between 3:00 pm and 8:59 pm. Over 60% of fatal crashes took place between noon and midnight.

- As with fatal crashes, the top five cities for traffic fatalities from 2012 to 2016 were Boston (124), Springfield (48), Worcester 944), Brockton (40), New Bedford (31) and Middleboro (31). These five cities accounted for 17% of all traffic fatalities.

- From 2007-2016, drivers have accounted for 62% of all traffic fatalities; passengers, 16%; pedestrians, 20%, and bicyclists, 2%. In the past five years, 2012-2016, the percentages have changed slightly - drivers, 61%; passengers, 15%; pedestrians, 21%; and bicyclists, 3%. Non-motorized fatalities have been climbing higher in recent years.

- Since 2007, Boston has been the location for 13% of all pedestrian fatalities (Worcester is second, 4%). Nearly 40% of traffic fatalities that took place in Boston from 2007 to 2016 were pedestrians.

All enforcement agencies receiving EOPSS/OGR/HSD grant funding must also use a data-driven approach to identify enforcement issues within their jurisdictions. Data are required in an enforcement agency's application for grant funding and must support the agency's request for funding. The data must further detail the key areas or demographics the agency plans to target with grant funding. While funding eligibility is based on crash data, most funding levels are based on population. This is because the population size generally corresponds with the number of crashes and associated data within a city or town. However, as part of the Pedestrian and Bicycle Safety Enforcement and Equipment Grant Program, applicants are able to request funding for any amount between $1,000 and $7,500.

When determining key areas to fund for FFY 2019, EOPSS/OGR/HSD utilizes data and stakeholder feedback not only to ascertain the size and severity of the problem but also where the greatest impact in terms of reducing crashes, injuries, and fatalities can be made. With numerous charts, graphs and tables in the FFY 2019 HSP, all planned tasks are supported by data and justify the need for funding to reduce traffic crashes, fatalities, injuries, and economic losses across the Commonwealth.

Subrecipients are mostly selected based on a competitive grant application that is data-driven and evidence-based. Each applicant is required to provide data on the level of crashes and fatalities within their respective community or region.

The Commonwealth of Massachusetts evidence-based traffic safety enforcement methodology will also include enforcement of traffic laws as pertaining to impaired driving, seat belt usage, and pedestrian safety, coupled with numerous sobriety checkpoints held throughout the state. The combined effort among local and state law enforcement agencies along with several non-profit organizations will help promote traffic safety and increase public awareness of pedestrians on the roads and of the risk involved with impaired driving and failure to wear a seat belt.

Based on the data contained in this section, EOPSS/OGR/HSD will make recommendations to local police departments and MSP so they can make more informed decisions about where to deploy resources. For instance, a recommendation to conduct seat belt enforcement during the workweek, afternoon and rush hour periods will be made.

To ensure projects remain focused on their respective objectives – namely, decreasing traffic safety-related crashes, fatalities and injuries, a two-pronged approach to oversight will be employed. First, EOPSS/OGR/HSD will conduct both pre- and post-award assessments of each grant-funded agency. The assessments will determine the level of oversight likely required of the subrecipient to ensure all grant requirements as well as fund expenditures are properly accounted for.

EOPSS/OGR/HSD will make site visits to keep enforcement agencies from lagging in their efforts as well as to ensure subrecipients are making efforts to reach desired objectives of their grant-funded project. These visits will not only be to ensure subrecipients are adhering to the requirement of the grant, but also to target towns or cities with a disconcerting increase in motor vehicle-related crash fatalities in recent years to see what the subrecipient is (or is not doing) to fight the rising tide of deaths in their respective municipality.

During FFY 2019, program coordinators will be making over 50 site visits across the Commonwealth. All visits will be documented through a standard reporting form and copies of the completed reports placed in the current files for the visited subrecipient.

Furthermore, all grant-funded agencies will be required to submit monthly reports covering activity, hours of enforcement, and expenditures. Data collected from these monthly reports are aggregated by EOPSS/OGR/HSD in order to detect any trends, whether positive or negative. If necessary, changes to the program will be made.

EOPSS/OGR/HSD reserve the right, based upon the reporting data collected from grant funded agencies, to reduce or stop funding if a subrecipient has shown a failure to adhere to the requirements of the grant.

The following table provides a list of the planned activities in the FFY 2019 HSP that collectively constitute as Massachusetts' TSEP:

Planned Activity Identifier	Planned Activity Title	Primary Countermeasure
AL-19-02	Local Police Impaired Driving Enforcement	Alcohol Impairment
AL-19-03	MSP Sobriety Checkpoint & Saturation Patrols	Publicized Sobriety Checkpoints
AL-19-04	Local STEP	Integrated Enforcement
AL-19-05	MSP STEP	Integrated Enforcement
DD-19-02	MSP Distracted Driving Enforcement	HVE Cellphone/Text Messaging
DD-19-03	Local Police Distracted Driving Enforcement	HVE Cellphone/Text Messaging
OP-19-02	Local Police CIOT Enforcement	Short-term, HVE Seat Belt Law
OP-19-03	MSP CIOT Enforcement	Short-term, HVE Seat Belt Law
OP-19-04	Local STEP	Integrated Enforcement
OP-19-05	MSP STEP	Integrated Enforcement
PS-19-02	Local Pedestrian & Bicycle Enforcement & Equipment	Pedestrian Safety Zones

Appendix I: List of Planned FFY 2019 Projects

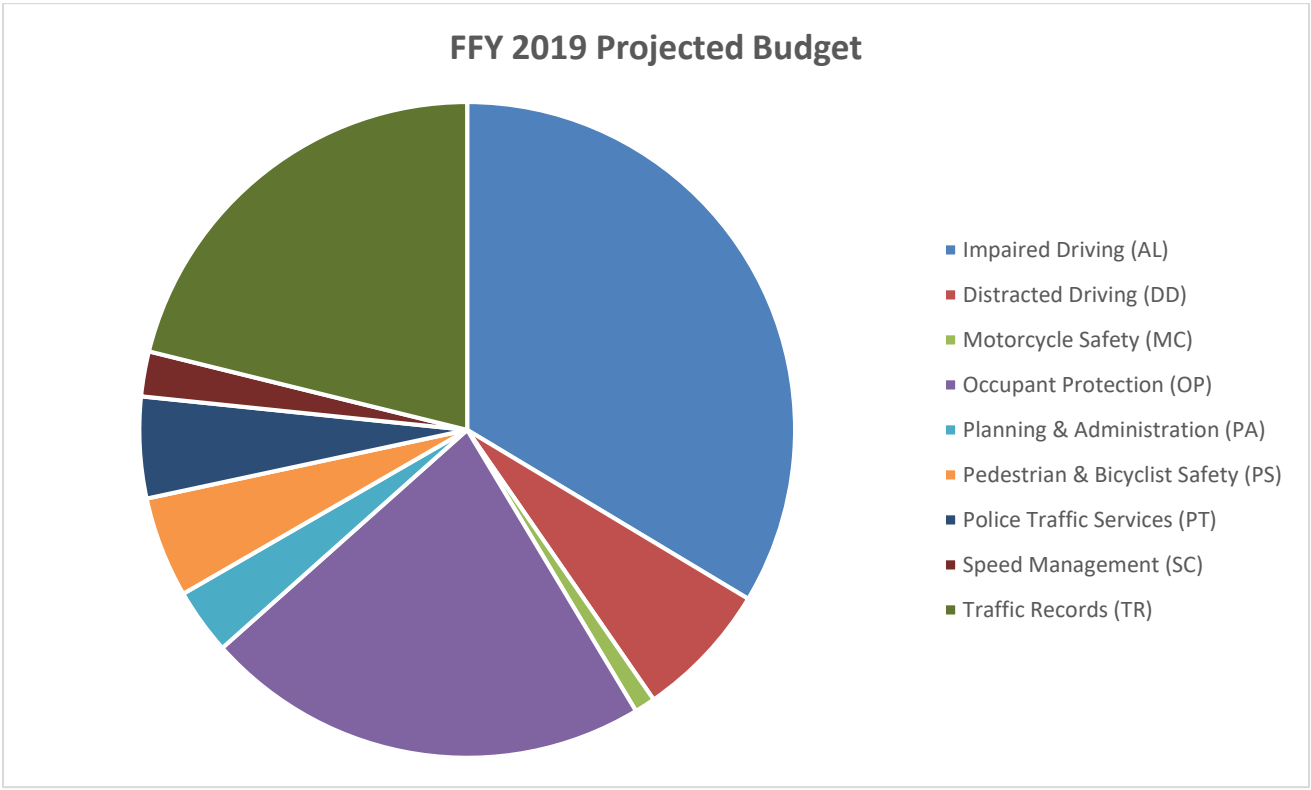
Planned Activity Identifier	Planned Activity Title	Funding Source	Projected Budget
AL-19-01	Impaired Driving Media	405d	$ 750,000
AL-19-02	Local Police Impaired Driving Enforcement	405d	$ 1,245,000
AL-19-03	MSP Sobriety Checkpoints & Saturation Patrols	405d	$ 1,400,000
AL-19-04	Local Sustained Traffic Enforcement Program (STEP)	402	$ 677,500
AL-19-05	MSP Sustained Traffic Enforcement Program (STEP)	402	$ 250,000
AL-19-06	Judicial Education Relating to Highway Safety	405d	$ 10,000
AL-19-07	MSP/OAT Training	405d	$ 125,000
AL-19-08	MSP DRE Training	405d	$ 40,000
AL-19-09	MPTC Impaired Driving Specialized Training (SFST)	405d	$ 140,000
AL-19-10	MPTC Drug Evaluation & Classification Program (DEC)	405d	$ 500,000
AL-19-11	ABCC Underage Drinking Compliance Checks	405d	$ 175,000
AL-19-12	ABCC Prevent Sale of Alcohol (SIP) to Intoxicated Persons	405d	$ 175,000
AL-19-13	Local Underage Marijuana Enforcement Grant Program	402	$ 50,000
AL-19-14	Stakeholders Conferences	402	$ 5,000
AL-19-15	Higher Education Impaired Driving Media Program	402	$ 10,000
AL-19-16	Alternative Transportation Program	405d	$ 35,000
AL-19-17	Community-Based Impaired Driving Grant Program	405d	$ 25,000
AL-19-18	Impaired Driving Assessment	405d	$ 30,000
AL-19-19	Program Management – Impaired Driving	402	$ 275,000
		Subtotal AL	**$ 5,917,500**
DD-19-01	Distracted Driving Media	402	$ 200,000
DD-19-02	MSP Distracted Driving Enforcement	402	$ 300,000
DD-19-03	Local Police Distracted Driving Enforcement	402	$ 625,000
DD-19-04	Higher Education Distracted Driving Media Program	402	$ 10,000
DD-19-05	Community-Based Distracted Driving Grant Program	402	$ 25,000
DD-19-06	Program Management – Distracted Driving	402	$ 30,000
		Subtotal DD	**$ 1,190,000**
MC-19-01	Motorcycle Safety Media	405f	$ 75,000
MC-19-02	Motorcycle Safety Program Enhancements	405f	$ 75,000
MC-19-03	Program Management – Motorcycle Safety	402	$ 30,000
		Subtotal MC	**$ 180,000**
OP-19-01	Occupant Protection Media	402	$ 500,000
OP-19-02	Local Police Occupant Protection Enforcement Campaign	405b	$ 625,000
OP-19-03	MSP Occupant Protection CIOT Enforcement Campaign	402	$ 500,000
OP-19-04	Local Police Sustained Traffic Enforcement Program (STEP)	402	$ 677,500
OP-19-05	MSP Sustained Traffic Enforcement Program (STEP)	402	$ 470,000
OP-19-06	CPS Equipment Grant Program	402	$ 225,000
OP-19-07	CPS Administration and Training	405b	$ 225,000
OP-19-08	CPS Statewide Information Line	402	$ 1,000
OP-19-09	Statewide Seat Belt Observation Survey	405b	$ 140,000
OP-19-10	MSP CPS Seat Checkpoints	402	$ 27,000
OP-19-11	Occupant Safety and Impaired Driving Awareness Display	402	$ 1,000
		405b	$ 1,000

Planned Activity Identifier	Planned Activity Title	Funding Source	Projected Budget
OP-19-12	"Buckle Up" Road Signage	402	$ 250,000
OP-19-13	Higher Education Grant – Occupant Protection Media	402	$ 10,000
OP-19-14	Community-Based Occupant Protection Program	402	$ 25,000
OP-19-15	Program Management – Occupant Protection	402	$ 200,000
		Subtotal OP	**$ 3,877,500**
PA-19-01	Administration of Statewide Traffic Safety Program	402	$ 567,000
PA-19-02	Americans with Disabilities Act (ACA) Compliance	402	$ 5,000
		Subtotal PA	**$ 572,000**
PS-19-01	Pedestrian and Bicyclist Safety Media	402	$ 150,000
PS-19-02	Local Police Pedestrian/Bicyclist Enforcement & Equipment	405h	$ 600,000
PS-19-03	Community-Based Pedestrian & Bicyclist Safety Program	402	$ 25,000
PS-19-04	Program Management – Pedestrian and Bicyclist Safety	402	$ 100,000
		Subtotal PS	**$ 875,000**
PT-19-01	MPTC Municipal Police Training	402	$ 238,750
PT-19-02	Law Enforcement Liaison (LEL)	402	$ 50,000
PT-19-03	MDAA/TSRP	402	$ 75,000
		405d	$ 130,000
PT-19-04	MSP LEL	402	$ 9,000
PT-19-05	State Judicial Outreach Liaison (SJOL)	405d	$ 100,000
PT-19-06	MSP Young Drivers Education Program	402	$ 76,500
PT-19-07	MSP Traffic Data Analyst	402	$ 75,000
PT-19-08	Program Management – Police Traffic Services	402	$ 125,000
		Subtotal PT	**$ 879,250**
SC-19-01	Speed Media	402	$ 50,000
SC-19-02	MSP Speed Enforcement	402	$ 300,000
SC-19-03	Program Management – Speed and Aggressive Driving	402	$ 40,000
		Subtotal SC	**$ 390,000**
TR-19-01	MassTRAC	402	$ 50,000
		405c	$ 375,000
TR-19-02	FARS (funded through Cooperative Agreement [CA])	C/A	*$ 82,000**
TR-19-03	MACCS	402	$ 500,000
		405c	$ 250,000
		1906	$ 750,000
TR-19-04	Investigation of Improved Linkage Strategy	405c	$ 129,534
TR-19-05	Data Quality Review of Crash Reports	405c	$ 196,803
TR-19-06	Tools for Improving Crash Reports Reviews Project	405c	$ 172,093
TR-19-07	Data Uniformity, Accuracy, Completeness, and Timeliness	405c	$ 180,000
TR-19-08	MATRIS & Trauma Registry National Standard Uniformity	405c	$ 414,779
TR-19-09	Boston Cyclist, Pedestrian and Vehicular Incident System	405c	$ 118,453
TR-19-10	Test the Template Developed by VHB by MIRE FDEs	405c	$ 91,775
TR-19-11	Projects to be Approved by TRCC	405c	$ 375,000
TR-19-12	Program Management – Traffic Records	402	$ 120,000
		Subtotal TR	**$ 3,723,437**

*Cooperative Agreement funds under TR-19-02 is not included in subtotal for TR.

FFY 2019 Program Area Funding Summary

Program Area	Projected Budget
Impaired Driving (AL)	$ 5,917,500
Distracted Driving (DD)	$ 1,190,000
Motorcycle Safety (MC)	$ 180,000
Occupant Protection (OP)	$ 3,877,500
Planning & Administration (PA)	$ 572,000
Pedestrian & Bicyclist Safety (PS)	$ 875,000
Police Traffic Services (PT)	$ 879,250
Speed Management (SC)	$ 390,000
Traffic Records (TR)	$ 3,723,437
Total FFY 2019 Projected Budget	**$ 17,604,687**



Appendix II: List of Countermeasures to be Implemented

Alcohol Vendor Compliance Checks
- AL-19-11 ABCC Underage Drinking Compliance Checks Program
- AL-19-12 ABCC Prevent the Sale of Alcohol (SIP) to Intoxicated Persons

Alternative Transportation
- AL-19-16 Alternative Transportation Program

Breath Test Devices
- AL-19-07 MSP/Office of Alcohol Testing (OAT) Breath Test Operator (BTO) Training

Child Restraint System Inspection Stations
- OP-19-06 Child Passenger Safety (CPS) Equipment Grant Program
- OP-19-07 CPS Administration and Training
- OP-19-10 MSP CPS Seat Checkpoints

Communication Campaign
- AL-19-01 Impaired Driving Media
- AL-19-14 Stakeholders Conferences
- AL-19-15 Higher Education Impaired Driving Media Program
- AL-19-17 Community-Based Impaired Driving Grant Program
- DD-19-01 Distracted Driving Media
- DD-19-04 Higher Education Distracted Driving Media Program
- DD-19-05 Community-Based Distracted Driving Grant Program
- MC-19-01 Motorcycle Safety Media
- OP-19-01 Occupant Protection Media
- OP-19-08 CPS Statewide Information Line
- OP-19-09 Statewide Seat Belt Observation Survey
- OP-19-12 "Buckle Up" Road Signage
- OP-19-13 Higher Education Grant Program – Occupant Protection Media Program
- OP-19-14 Community-Based Occupant Protection Program
- PS-19-01 Pedestrian and Bicyclist Safety Media
- SC-19-01 Speed Media

Conspicuity Enhancement
- PS-19-03 Community-Based Pedestrian and Bicyclist Safety Program

Court Monitoring
- PT-19-03 MDAA/TSRP

Drug Recognition Expert (DRE) Training
- AL-19-08 MSP DRE Training
- AL-19-10 MPTC Drug Evaluation and Classification Program (DEC)

DWI Courts
- AL-19-06 Judicial Education Relating to Highway Safety Strategies
- PT-19-03 MDAA/TSRP
- PT-19-05 State Judicial Outreach Liaison (SJOL)

Enforcement of Drug-Impaired Driving

- AL-19-08 MSP DRE Training
- AL-19-09 MPTC Impaired Driving Law Enforcement Specialized Training (SFST)
- AL-19-10 MPTC Drug Evaluation and Classification Program (DEC)
- AL-19-13 Local Underage Marijuana Enforcement Grant Program

High Visibility Cellphone/Text Messaging Enforcement

- DD-19-02 MSP Distracted Driving Enforcement
- DD-19-03 Local Police Distracted Driving Enforcement

High Visibility Saturation Patrols

- AL-19-02 Local Police Impaired Driving Enforcement
- AL-19-03 MSP Sobriety Checkpoints & Saturation Patrols

Highway Safety Office Program Management

- AL-19-19 Program Management – Impaired Driving
- DD-19-06 Program Management – Distracted Driving
- MC-19-03 Program Management – Motorcycle Safety
- OP-19-15 Program Management – Occupant Protection
- PA-19-01 Administration of Statewide Traffic Safety Program
- PA-19-02 Americans with Disabilities Act (ACA) Compliance
- PS-19-04 Program Management – Pedestrian and Bicycle Safety Program
- PT-19-08 Program Management – Police Traffic Services
- SC-19-03 Program Management – Speed & Aggressive Driving

Impaired Driving Program (NHTSA) Facilitated

- AL-19-18 Impaired Driving Assessment

Integrated Enforcement

- AL-19-04 Local Sustained Traffic Enforcement Program (STEP)
- AL-19-05 MSP STEP
- OP-19-04 Local STEP
- OP-19-05 MSP STEP

Motorcycle Rider Training

- MC-19-02 Motorcycle Safety Program Enhancements

Pedestrian Safety Zones

- PS-19-02 Local Police Pedestrian & Bicyclist Enforcement and Equipment Program

Police Training Supporting Enforcement

- PT-19-01 Municipal Police Training (MPTC)
- PT-19-02 Law Enforcement Liaison (LEL)
- PT-19-04 MSP LEL
- PT-19-07 MSP Traffic Data Analyst

Preliminary Breath Test (PBT) Devices

- AL-19-02 Local Police Impaired Driving Enforcement
- AL-19-03 MSP Sobriety Checkpoints & Saturation Patrols
- AL-19-04 Local Sustained Traffic Enforcement Program (STEP)
- AL-19-05 MSP STEP
- AL-19-07 MSP/OAT BTO Training
- AL-19-09 MPTC Impaired Driving Standardized Field Sobriety Testing (SFST) Training

Publicized Sobriety Checkpoints

- AL-19-03 MSP Sobriety Checkpoint & Saturation Patrols

School Programs

- PT-19-06 MSP Young Drivers Education Program

SFST Training

- AL-19-09 MPTC Impaired Driving SFST Training

Short-term, High-Visibility Child Restraint Law Enforcement

- OP-19-02 Local Police Occupant Protection Enforcement Campaign
- OP-19-03 MSP Occupant Protection CIOT Enforcement Campaign

Short-term, High-Visibility Seat Belt Law Enforcement

- OP-19-02 Local Police Occupant Protection Enforcement Campaign
- OP-19-03 MSP Occupant Protection CIOT Enforcement Campaign
- OP-19-11 Occupant Safety and Impaired Driving Awareness Display Vehicle

Supporting Enforcement

- OP-19-11 Occupant Safety and Impaired Driving Awareness Display Vehicle

Sustained Enforcement

- AL-19-04 Local STEP
- AL-19-05 MSP STEP
- OP-19-04 Local STEP
- OP-19-05 MSP STEP
- SC-19-02 MSP Speed Enforcement

Underage Drinking Enforcement

- AL-19-02 Local Police Impaired Driving Enforcement
- AL-19-03 MSP Sobriety Checkpoints & Saturation Patrols
- AL-19-11 ABCC Underage Drinking Compliance Checks